

DUFF & PHELPS

**2019** Valuation Handbook  
**U.S. Industry Cost of Capital**  
Market Results Through December 2019  
Duff & Phelps  
Company & SIC List



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## About Duff & Phelps

Duff & Phelps is the global advisor that protects, restores and maximizes value for clients in the areas of valuation, corporate finance, investigations, disputes, cyber security, compliance and regulatory matters, and other governance-related issues. We work with clients across diverse sectors, mitigating risk to assets, operations and people. With Kroll, a division of Duff & Phelps since 2018, our firm has nearly 3,500 professionals in 28 countries around the world. For more information, visit [www.duffandphelps.com](http://www.duffandphelps.com).

# Additional Resources

Duff & Phelps is transitioning most of its valuation data resources from print delivery to a new online delivery platform, the “Cost of Capital Navigator”. The Cost of Capital Navigator guides the Analyst through the process of estimating the cost of capital, a key component of any valuation analysis.<sup>1</sup> To learn more about the Cost of Capital Navigator, visit [dpcostofcapital.com](http://dpcostofcapital.com).

The history and future of Duff & Phelps data resources are discussed below.

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Duff & Phelps' Valuation Digital Solutions (formerly the Duff & Phelps Business Publishing Group) has authored five books that focus on U.S. and international valuation theory, data, and risk premia (e.g., equity risk premia, risk free rates, size premia, industry risk premia, betas, industry multiples, and other statistics, etc.) for use in valuation models.

Duff & Phelps produces one book that focuses on U.S. capital markets performance data (i.e., the history of returns of the capital markets in the U.S. from 1926 to the present). This resource, the *Stocks, Bonds, Bills, and Inflation*® (SBBi®) *Yearbook*, has been published for over 30 years.<sup>2</sup> The SBBi® *Yearbook* does not provide extensive valuation data or methodology.<sup>3</sup>

Each of the (i) U.S. and international valuation data resources, and the (ii) U.S. asset class performance data resources are discussed in detail in the following sections.

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<sup>1</sup> The Cost of Capital Navigator includes both U.S. and international (i) cost of equity capital estimates, and (ii) weighted average cost of capital (WACC) estimates (subscription required). For more information or to purchase, visit: [dpcostofcapital.com](http://dpcostofcapital.com).

<sup>2</sup> “Stocks, Bonds, Bills, and Inflation” and “SBBi” are registered trademarks of Morningstar, Inc. All rights reserved. Used with permission.

<sup>3</sup> Morningstar previously published two “Ibbotson SBBi” yearbooks: (i) The SBBi® “Classic” *Yearbook*, which is now produced by Duff & Phelps as the “SBBi® *Yearbook*” starting in 2016 (the word “Classic” was dropped from the title), and (ii) the SBBi® “Valuation” *Yearbook*, which was discontinued by Morningstar in 2013. The former Ibbotson/Morningstar SBBi® *Valuation Yearbook* was replaced by the Duff & Phelps *Valuation Handbook – U.S. Guide to Cost of Capital* in 2014, and published annually as a hardcover book through 2018. Starting in 2018, Duff & Phelps will not publish a commercially available physical version of the *Valuation Handbook – U.S. Guide to Cost of Capital* that includes the data exhibits; the essential valuation data from the data exhibits will be available only in the Cost of Capital Navigator online platform. To learn more about the Cost of Capital Navigator, visit: [dpcostofcapital.com](http://dpcostofcapital.com).

# U.S. and International Valuation Data Resources

Duff & Phelps produces five valuation data resources. The first four of these are the "Valuation Handbooks". Three of the four Valuation Handbooks have already been transitioned over to digital delivery on the online Cost of Capital Navigator platform at [dpcostofcapital.com](http://dpcostofcapital.com). A summary of the status of the four Valuation Handbooks is provided in Figure 1.

**Figure 1:** The Four Duff & Phelps Valuation Handbooks

Valuation Handbook	Status
Valuation Handbook – U.S. Guide to Cost of Capital	→ Now available (exclusively) in the Cost of Capital Navigator's <b>U.S. Cost of Capital Module</b>
Valuation Handbook – U.S. Industry Cost of Capital	→ Now available (exclusively) in the Cost of Capital Navigator's <b>U.S. Industry Benchmarking Module</b>
Valuation Handbook – International Guide to Cost of Capital	→ Now available (exclusively) in the Cost of Capital Navigator's <b>International Cost of Capital Module</b>
Valuation Handbook – International Industry Cost of Capital	Scheduled to be added to the Cost of Capital Navigator in 2020 as the <b>International Industry Benchmarking Module</b>

The fifth valuation data resource is the *Cost of Capital: Applications and Examples* 5<sup>th</sup> edition, by Shannon P. Pratt and Roger K. Grabowski (John Wiley & Sons, Inc., 2014). There are presently no plans to transition the information and data from this book over to the Cost of Capital Navigator platform. A summary of the status of the *Cost of Capital: Applications and Examples*, 5<sup>th</sup> edition is provided in Figure 2.

**Figure 2:** *The Cost of Capital: Applications and Examples*, 5<sup>th</sup> edition

Additional Valuation Resource	Status
<i>Cost of Capital: Applications and Examples</i> 5 <sup>th</sup> edition	<b>Continues to be published as a hardcover book.</b> Will not be added to Cost of Capital Navigator.

A detailed description of each of the five Duff & Phelps valuation resources listed in Figure 1 and Figure 2 is provided in the following sections.

## **The Cost of Capital Navigators's U.S. Cost of Capital Module**

The essential valuation data previously published in the former *Valuation Handbook – U.S. Guide to Cost of Capital* has been exclusively available in the new online Cost of Capital Navigator's U.S. Cost of Capital Module since 2018.

The U.S. Cost of Capital Module includes two essential U.S. valuation data sets:

- The CRSP Deciles Size Study<sup>4</sup>
- The Risk Premium Report Study<sup>5</sup>

The U.S. Cost of Capital Module includes:

- Size Premia
- Industry Risk Premia
- Equity Risk Premia (ERPs)
- Risk-free Rates
- Risk Premia Over the Risk-free Rate

And other risk premia that analysts have used and trusted for years to develop cost of capital estimates for U.S. companies.

For more information and to purchase the Cost of Capital Navigator's U.S. Cost of Capital Module, visit [dpcostofcapital.com](http://dpcostofcapital.com).

## **The Cost of Capital Navigators's U.S. Industry Benchmarking Module**

The essential industry-level data previously published in the former *Valuation Handbook – U.S. Industry Cost of Capital* has been exclusively available in the new online Cost of Capital Navigator's U.S. Industry Benchmarking Module since 2019.

The U.S. Industry Benchmarking Module includes:

- Industry-level Cost of Capital Estimates (cost of equity capital, cost of debt capital, and weighted average cost of capital, or WACC),

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<sup>4</sup> The CRSP Deciles Size Study was published in the Ibbotson Associates *Stocks, Bonds, Bill, and Inflation*<sup>®</sup> (SBBI<sup>®</sup>) *Valuation Yearbook* from 1999–2006, in the Morningstar/Ibbotson<sup>®</sup> *Stocks, Bonds, Bill, and Inflation*<sup>®</sup> (SBBI<sup>®</sup>) *Valuation Yearbook* from 2007–2013, in the Duff & Phelps *Valuation Handbook – U.S. Guide to Cost of Capital* from 2014–2017, and since 2018 has been available exclusively in the Duff & Phelps online “Cost of Capital Navigator” platform at [dpcostofcapital.com](http://dpcostofcapital.com).

<sup>5</sup> The *Risk Premium Report* was published as the *PricewaterhouseCoopers Risk Premium Reports* and *Price Waterhouse Rick Premium Reports* for years before 2002, as the *Standard & Poor's Corporate Value Consulting Risk Premium Report* from 2002–2004, the the Duff & Phelps *Risk Premium Report* from 2005–2013, and in the Duff & Phelps *Valuation Handbook – U.S. Guide to Cost of Capital* from 2014–2017, and since 2018 has been available exclusively in the Duff & Phelps online “Cost of Capital Navigator” platform at [dpcostofcapital.com](http://dpcostofcapital.com).

Plus detailed industry-level statistics for:

- Sales
- Market Capitalization
- Capital Structure
- Levered and Unlevered Betas
- Valuation Multiples
- Financial and Profitability Ratios
- Equity Returns
- Aggregate Forward-Looking Earnings-Per-Share (EPS) Growth Rates

And more. Over 300 critical industry-level data points are calculated for approximately 170 U.S. industries (depending on data availability). Industries are organized by standard industrial classification (SIC) code.

The U.S. Industry Benchmarking Module can be used to benchmark, augment, and support the analyst's own custom analysis of the industry in which a subject business, business ownership interest, security, or intangible asset resides.

For more information and to purchase the Cost of Capital Navigator's [U.S. Industry Benchmarking Module](#), visit [dpcostofcapital.com](http://dpcostofcapital.com).

### **The Cost of Capital Navigators's International Cost of Capital Module**

The essential valuation data previously published in the former *Valuation Handbook – International Guide to Cost of Capital* has been exclusively available in the new online Cost of Capital Navigator's International Cost of Capital Module since 2020.

The International Cost of Capital Module includes:

- Country Risk Premia (CRPs) for over 180 countries
- Relative Volatility (RV) Factors for over 70 countries
- Country-level Equity Risk Premia for 16 Countries
- Country-level Risk-Free Rates
- International Industry-Level Betas
- Tax Rates
- Inflation Rates

And more. The International Cost of Capital Module can be used to estimate country-level cost of equity capital globally, for 175+ countries, from the perspective of investors based in any one of up to 56 countries (depending on data availability).

*"Measuring the impact of country risk in determining the international cost of capital is one of the most vexing issues in finance. Any company doing international cost of capital estimation must, at minimum, consult the Cost of Capital Navigator's International Cost of Capital Module!"*

– **Campbell R. Harvey**, Professor of International Business at the Fuqua School of Business, Duke University

For more information and to purchase the Cost of Capital Navigator's [International Cost of Capital Module](#), visit [dpcostofcapital.com](http://dpcostofcapital.com).

### **Valuation Handbook – [International Industry Cost of Capital](#)**

The *Valuation Handbook – International Industry Cost of Capital* will be printed and distributed as a physical book in 2020, but the essential information and data from this book is scheduled to be added to the Cost of Capital Navigator as the [International Industry Benchmarking Module](#) later in 2020.

Purchasers of the 2020 *Valuation Handbook – International Industry Cost of Capital* will receive a copy of the physical 2020 book (and associated intra-year update). Purchasers will also be given access to the book's upcoming online equivalent, the Cost of Capital Navigator's International Industry Benchmarking Module as soon as the module becomes available.

The *Valuation Handbook – International Industry Cost of Capital* (and upcoming online International Industry Benchmarking Module) includes industry-level analyses for four global economic areas:

- The World<sup>6</sup>
- The European Union
- The Eurozone
- The United Kingdom

Each of the four global economic area's industry analyses are presented in three currencies: (i) the euro (€ or EUR), (ii) the British pound (£ or GBP), and (iii) the U.S. dollar (\$) or USD).

The *Valuation Handbook – International Industry Cost of Capital* (and upcoming online International Industry Benchmarking Module) include:

- Industry-level Cost of Capital Estimates (cost of equity capital, cost of debt capital, and weighted average cost of capital, or WACC)

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<sup>6</sup> In the *Valuation Handbook – International Industry Cost of Capital*, "World" companies are defined as companies that (i) are components of the MSCI ACWI IMI, and (ii) satisfy the rigorous screening requirements that are employed to define the company sets user therein.

Plus detailed industry-level statistics for:

- Sales
- Market Capitalization
- Capital Structure
- Levered and Unlevered Betas
- Valuation Multiples
- Financial and Profitability Ratios
- Equity Returns
- Aggregate Forward-looking Earnings-Per-Share (EPS) Growth Rates

And more. Over 300 critical industry-level data points are calculated for each industry (depending on data availability). Industries are organized by global industry classification standard (GICS) code.

The *Valuation Handbook – International Industry Cost of Capital* can be used to benchmark, augment, and support the analyst's own custom analysis of the industry in which a subject business, business ownership interest, security, or intangible asset resides.

For more information and to purchase the *2020 Valuation Handbook – International Industry Cost of Capital* visit: [duffandphelps.onfastspring.com/books](http://duffandphelps.onfastspring.com/books).

Purchasers of the *2020 Valuation Handbook – International Industry Cost of Capital* will receive a copy of the physical 2020 book (and associated intra-year update). Purchasers will also be given access to the book's upcoming online equivalent, the Cost of Capital Navigator's International Industry Benchmarking Module as soon as the module becomes available. For more information about the Duff & Phelps online Cost of Capital Navigator platform, visit [dpcostofcapital.com](http://dpcostofcapital.com).

### **The Cost of Capital: Applications and Examples, 5<sup>th</sup> edition**

There are presently no plans to add the information and data from the *Cost of Capital: Applications and Examples* (5th edition) to the Duff & Phelps online Cost of Capital Navigator platform. This book will continue to be published as a hardcover book.

The *Cost of Capital: Applications and Examples* 5th edition, by Shannon P. Pratt and Roger J. Grabowski (John Wiley & Sons, Inc., 2014) is the authoritative, comprehensive overview of valuation theory, best practices, and proper use of data. This book puts an emphasis on practical application.

The *Cost of Capital: Applications and Examples* 5th edition is a one-stop shop for background and current thinking on the development and uses of rates of return on capital. This book contains expanded materials on estimating the basic building blocks of the cost of equity capital, the risk-free rate, and the equity risk premium, plus in-depth discussion of the volatility created by the 2008 financial crisis, the subsequent recession and uncertain recovery, and how those events have fundamentally changed how we need to interpret the inputs to the models we use to develop these estimates.

The *Cost of Capital: Applications and Examples* 5th edition includes case studies providing comprehensive discussion of cost of capital estimates for valuing a business and damages calculations for small and medium-sized businesses, cross referenced to the chapters covering the theory and data. This book puts an emphasis on practical application. To that end, this updated edition provides readers with exclusive access to a companion website filled with supplementary materials, allowing you to continue to learn in a hands-on fashion long after closing the book. The *Cost of Capital: Applications and Examples* has been published since 1998 and is updated every several years. The 6th edition of this book is tentatively scheduled for publication late 2021.

*"Shannon Pratt and Roger Grabowski have produced a remarkably comprehensive review of the subject...it is a work that valuation practitioners, CFOs, and others will find an invaluable reference".*

– **Professor Richard Brealey**, Emeritus Professor of Finance, London Business School

*"Estimating the cost of capital is critical in determining the valuation of assets, in evaluating the capital structure of corporations, and in estimating the long-run expected return of investments. Shannon Pratt and Roger Grabowski have the most thorough text on the subject, not only providing various estimation methods, but also numerous ways to use the cost of capital".*

– **Professor Roger G. Ibbotson**, Professor Emeritus of Finance at the Yale School of Management, Chairman of Zebra Capital LLC, and former Chairman and founder of Ibbotson Associates, now part of Morningstar, Inc.

To learn more about *Cost of Capital: Applications and Examples* 5th edition, visit:  
[www.wiley.com/buy/9781118555804](http://www.wiley.com/buy/9781118555804).

# U.S. Asset Class Performance Data

## Stocks, Bonds, Bills, and Inflation® (SBBi®) Yearbook

There are presently no plans to add the information and data from the *Stocks, Bonds, Bills, and Inflation® (SBBi®) Yearbook* to the Cost of Capital Navigator platform. This book will continue to be published as a hardcover book.

The *Stocks, Bonds, Bills, and Inflation® (SBBi®) Yearbook* (updated annually) has been the definitive annual resource for historical U.S. capital markets performance data for over 30 years.

Starting with the 2016 edition, the *Stocks, Bonds, Bills, and Inflation® (SBBi®) Yearbook* has been produced by Duff & Phelps. The *SBBi® Yearbook* was previously published by Morningstar, Inc. under the name "*Ibbotson® Stocks, Bonds, Bills, and Inflation® (SBBi®) Classic Yearbook*".<sup>7, 8</sup>

This book includes returns, index values, and statistical analyses of U.S. large company stocks, small company stocks, long-term corporate bonds, long-term government bonds, intermediate-term government bonds, U.S. Treasury bills, and inflation from January 1926 to present (monthly). Anyone serious about investments or investing needs an appreciation of capital market history. Such an appreciation, which can be gained from this book, is equally valuable to the individual and institutional investor, practitioners and scholars in finance, economics, and business; portfolio strategists, and security analysts seeking to benchmark their own investment performance. The *SBBi® Yearbook* is a thinking person's guide to using historical data to understand the financial markets and make decisions.

To learn more about the *Stocks, Bonds, Bills, and Inflation® (SBBi®) Yearbook*, visit:  
[duffandphelps.onfastspring.com/books](http://duffandphelps.onfastspring.com/books).

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<sup>7</sup> The *SBBi® Classic Yearbook (as it was known at that time)* was published by Morningstar, Inc. from 2007 through 2015, and by Ibbotson Associates in years prior to 2007. Beginning with the 2016 edition, the *SBBi® Yearbook* (the word "Classic" was dropped from the title) has been produced by Duff & Phelps.

<sup>8</sup> The *SBBi® Yearbook* provides historical "performance" data of U.S. asset classes, while the other Duff & Phelps data resources provide "valuation" data. Specifically, the other Duff & Phelps data resources focus on U.S. and international valuation data and risk premia (e.g., equity risk premia, risk-free rates, size premia, industry risk premia, betas, industry multiples and other statistics, etc.) for use in valuation models, while the *SBBi® Yearbook* (this book) is (i) a history of the returns of the capital markets in the U.S. (thus the name, "Stocks, Bonds, Bills, and Inflation®," or "SBBi®") from 1926 to the present, and (ii) an analysis of the relative performance of U.S. asset classes. The *SBBi® Yearbook* has been published annually for over 30 years. The *SBBi® Yearbook* does not provide extensive valuation data or methodology.

## Industry-Level Cost of Capital Estimates

The *2019 Valuation Handbook – U.S. Industry Cost of Capital* and the online U.S. Industry Benchmarking Module at [dpcostofcapital.com](http://dpcostofcapital.com) provides eight (8) cost of equity capital estimates for each of the industries covered in the book:<sup>9,10</sup>

- 1) Capital Asset Pricing Model (CAPM)<sup>11</sup>
- 2) CAPM + Size Premium (using the CRSP Deciles Size Study)
- 3) Build-up + Industry Risk Premium (using the CRSP Deciles Size Study)
- 4) CAPM + Size Premium (using the Risk Premium Report Study)
- 5) Build-up + Risk Premium Over the Risk-free Rate (using Risk Premium Report Study)
- 6) 1-Stage Discounted Cash Flow (DCF) model
- 7) 3-Stage DCF model
- 8) Fama-French (F-F) 5-Factor Model

Cost of debt capital and weighted average cost of capital (WACC) are also presented for each industry.<sup>12</sup> WACC is calculated using the cost of equity capital estimated by *each* of the eight models, plus the cost of preferred capital input and the cost of debt capital input.

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<sup>9</sup> Depending on data availability; some industries may not include all estimates.

<sup>10</sup> In this list, the “CRSP Deciles Size Study” is the valuation data previously published on the “back page” of the Morningstar/Ibbotson *S&P 500 Valuation Yearbook*; the “Risk Premium Report Study” is the valuation data previously published in the Duff & Phelps Risk Premium Report. Both of these key valuation data sets are now available exclusively in the online Duff & Phelps Cost of Capital Navigator [U.S. Cost of Capital Module](http://U.S._Cost_of_Capital_Module_at_dpcostofcapital.com) at [dpcostofcapital.com](http://dpcostofcapital.com). The data and information in the former *Valuation Handbook – U.S. Guide to Cost of Capital* was published annually in a hardcover book from 2014 to 2017. Starting in 2018, the essential valuation data previously published in the *Valuation Handbook – U.S. Guide to Cost of Capital* will be available exclusively in the new online Cost of Capital Navigator platform. To learn more about the Duff & Phelps Cost of Capital Navigator, visit: [dpcostofcapital.com](http://dpcostofcapital.com).

<sup>11</sup> This is CAPM calculated without any additional adjustments for “size”, or other factors (i.e., the traditional “textbook” or “base” CAPM).

<sup>12</sup> Depending on data availability; some industries may not include all estimates.

## Industry-Level Statistics, Capital Structure, Valuation Multiples, and Betas

The *2019 Valuation Handbook – U.S. Industry Cost of Capital* and the online U.S. Industry Benchmarking Module at [dpcostofcapital.com](http://dpcostofcapital.com) also provide detailed statistics for sales, total assets, industry performance, capital structure, various levered and unlevered beta estimates (e.g., ordinary least squares (OLS) beta, sum beta, downside beta, etc.), valuation (trading) multiples, financial and profitability ratios, equity returns, aggregate forward-looking earnings per share (EPS) growth rates, and more.

## Analysis of Capital Structure Including Off-Balance-Sheet Liabilities

The *2019 Valuation Handbook – U.S. Industry Cost of Capital* and the online U.S. Industry Benchmarking Module at [dpcostofcapital.com](http://dpcostofcapital.com) provide statistics that enable the user to gauge the impact of “debt-like” off-balance-sheet items on the capital structure of the subject industry. These debt-equivalent liabilities (specifically, capitalized operating leases and unfunded pension obligations) are not only taken into account by credit rating agencies when assigning a debt rating for a company, but should likely be considered when ascertaining the true financial (and equity) risk of the subject company as well.

The capital structure (and unlevered betas) of each industry are calculated with and without these off-balance-sheet debt-equivalent items, so that the user can gauge how material these liabilities are for the subject industry (see Appendices A and B).

For a detailed discussion, see *Cost of Capital: Applications and Examples* 5th edition, by Shannon P. Pratt and Roger J. Grabowski, Chapter 20, “Other Components of a Business’s Capital Structure”.

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## A Special Note on the Treatment of Off-Balance-Sheet Liabilities

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The accounting treatment of leases under U.S. GAAP and IFRS has recently undergone a sweeping change, replacing rules that have been in place for over 30 years. According to some estimates, this accounting change will ultimately bring trillions of dollars of off-balance-sheet liabilities into companies’ balance sheets.<sup>13</sup> The new standards have the following effective dates:

Accounting Standards Codification Topic 842 *Leases* (ASC 842) under U.S. GAAP:

- Publicly traded companies and certain other SEC filers: Mandatory for fiscal years (including interim periods within those fiscal years) beginning after December 15, 2018. For calendar-year companies, this means an effective date of January 1, 2019.
- All other entities: Mandatory for fiscal years (including interim periods within those fiscal years) beginning after December 15, 2020. For calendar-year companies, this means an effective date of January 1, 2021.
- Early adoption allowed.

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<sup>13</sup> See for example, “IFRS 16 – Effects Analysis” published by the IASB in January 2016. Accessible here: <https://www.ifrs.org/-/media/project/leases/ifrs/published-documents/ifrs16-effects-analysis.pdf>.

## IFRS 16 Leases:

- All entities reporting under IFRS: Mandatory for fiscal years (annual periods) beginning on or after January 1, 2019.
- Early adoption allowed.

While these standards are not fully converged, in simple terms they will both have the effect of requiring lessees to recognize lease liabilities and a corresponding right-of-use (RoU) asset on the balance sheet for all lease agreements:

- U.S. GAAP adopted a dual lessee accounting model: Operating leases (previously an off-balance sheet item) are now recognized on the balance sheet. However, the rent (lease) expense will continue to flow through the income statement. Conversely, finance leases (formerly capital leases) will continue to have a similar treatment as in previous rules. This means that there is no rent expense related to the finance lease being recorded; rather amortization (of the RoU) and interest expenses associated with the lease agreement are recognized separately in the income statement.
- IFRS introduced a single lessee accounting model: all the previous operating and capital leases will now be classified as finance leases and capitalized on the balance sheet. In the income statement, rent expense is now bifurcated between depreciation and interest expense. This treatment differs from the U.S. GAAP handling of operating leases.

Accounting for lessors saw minimal changes and remains similar to previous rules.

The December 31, 2019 data used in (this) U.S. industry analysis update was retrieved in early January 2020 and reflected a relatively small number of companies that have adopted the new lease accounting rules on their annual financial statements. To ensure metrics are fully comparable across companies and industries, the authors and other members of the Valuation Digital Solutions team elected to exclude operating leases from the analysis for those companies that have already adopted (e.g., total debt was computed excluding operating lease liabilities).

In the March 31, 2020 update, the Valuation Digital Solutions team will assess the number of companies that have reported operating leases in their annual financial statements under the new rules. At this juncture, we anticipate that a significant amount of companies will have already reflected operating leases on their balance sheets as of that date. If that expectation is confirmed, we will update the analysis to include this impact (e.g., on the computation of total debt, capital structure, EBITDA/EV valuation multiples, etc.).

## **New in the 2019 Valuation Handbook – U.S. Industry Cost of Capital**

The most recent and significant change is that the essential industry-level data published in the *Valuation Handbook – U.S. Industry Cost of Capital* has been available in the new online Cost of Capital Navigator's [U.S. Industry Benchmarking Module](#) at [dpcostofcapital.com](http://dpcostofcapital.com) since 2019. Starting with the March 2020 the information and data published herein will be *exclusively* available in the Cost of Capital Navigator's U.S. Industry Benchmarking Module. A physical book will no longer be published.

For more information about the Duff & Phelps online Cost of Capital Navigator platform and to subscribe to the [U.S. Industry Benchmarking Module](#), visit [dpcostofcapital.com](http://dpcostofcapital.com).

Another significant change may occur in the *upcoming* March 31, 2020 update to the information and data herein in regards to the new accounting treatment of leases under U.S. GAAP and IFRS, which has recently undergone a sweeping change. According to some estimates, this accounting change will ultimately bring trillions of dollars of off-balance-sheet liabilities into companies' balance sheets. To learn more, please read the section herein entitled "A Special Note on the Treatment of Off-Balance-Sheet Liabilities".

Starting with the 2016 edition, we added a new Appendix C, the "van Binsbergen-Graham-Yang Optimal Capital Structure Model", based upon the work of Jules H. van Binsbergen, Associate Professor of Finance, The Wharton School, University of Pennsylvania, John R. Graham, Professor of Finance, Fuqua School of Business, Duke University, and Jie Yang, Senior Economist with the Board of Governors of the Federal Reserve System.<sup>14</sup> This new appendix provides estimates of (i) the optimal amount of debt that firms should use as a percentage of their total capital, and (ii) the incremental firm value potentially created by choosing an optimal capital structure (rather than using no debt at all). The optimal capital structure model reflects several important tax code changes that occurred starting in tax year 2018 due to the Tax Cuts and Jobs Act (TCJA) tax reform. Visit Appendix C to learn all the key new features of the TJCA tax code.

In early editions of the *Valuation Handbook – U.S. Industry Cost of Capital*, all beta estimates on each industry tear-sheet were rounded to the nearest tenth (i.e., one decimal). Starting with the 2017 edition, all beta estimates on each tearsheet are now rounded to the nearest hundredth (i.e., two decimals). At readers' request, this refinement was added to provide valuation practitioners with one more decimal of precision for this metric.

In previous editions of the *Valuation Handbook – U.S. Industry Cost of Capital*, all SICs in Division H: Finance, Insurance, and Real Estate (major groups between SICs beginning with "60" and "67") included three equity valuation multiples (Price/Sales, Price/Earnings, and Market/Book) and two enterprise valuation multiples (EV/Sales and EV/EBITDA). Starting with the 2017 edition, all SICs in Division H: Finance, Insurance, and Real Estate (major groups between "60" and "67") now include four equity valuation multiples (Price/Sales, Price/Earnings, Price/Tangible Book, and Price/Earnings Before Taxes) and one enterprise valuation multiple (EV/EBITDA). This refinement is to provide more commonly used equity based metrics for valuation practitioners analyzing the financial services industry.

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<sup>14</sup> In the 2014 and 2015 *Valuation Handbook – U.S. Industry Cost of Capital*, Appendix C was "Definitions of Standard & Poor's Compustat Data Items Used in Calculations". Starting with the 2016 edition, "Definitions of Standard & Poor's Compustat Data Items Used in Calculations" has been moved to Appendix D.

Starting with the *2018 Valuation Handbook – U.S. Industry Cost of Capital*, the methodology for calculating the Large Composite and Small Composite have been updated. In previous editions, for industries that had 10 companies or more, the Large Composite and the Small Composite were identified as either (i) the largest three and the smallest three companies in terms of reported net sales amount (in U.S. dollars) for the most recent fiscal year, or (ii) the largest and smallest 10% (rounded down to the nearest integer), whichever is greater. Starting with this edition, for industries that have 15 companies or more, the Large Composite and the Small Composite are identified as either (i) the largest five and the smallest five companies in terms of reported net sales amount (in U.S. dollars) for the most recent fiscal year, or (ii) the largest and smallest 10% (rounded down to the nearest integer), whichever is greater (see Exhibit 3 for more information). At readers' request, this refinement was added to provide valuation practitioners with more meaningful results for the Large and Small Composites by increasing the sample size.

# Introduction

The hardcover *2019 Valuation Handbook – U.S. Industry Cost of Capital* is published with data through March 2019, and includes three intra-year Quarterly Updates (June, September, and December 2019), delivered in Adobe PDF format.<sup>14,15</sup>

The *2019 Valuation Handbook – U.S. Industry Cost of Capital* provides cost of capital estimates (i.e., equity capital, debt capital, and WACC) for approximately 170 U.S. industries (identified by Standard Industrial Classification (SIC) code) and size groupings (i.e., Large-, Mid-, Low-, and Micro-capitalization companies), plus detailed statistics for sales, market capitalization, capital structure, various levered and unlevered beta estimates (e.g., ordinary least squares (OLS) beta, sum beta, downside beta, etc.), valuation (trading) multiples, financial and profitability ratios, equity returns, aggregate forward-looking earnings-per-share (EPS) growth rates, and more. The information and statistics in the *2018 Valuation Handbook – U.S. Industry Cost of Capital* can be used by the analyst to (i) benchmark, (ii) augment, and (iii) support his or her own custom analysis of the industry in which a subject business, business ownership interest, security, or intangible asset resides.<sup>16</sup>

The information in the *2019 Valuation Handbook – U.S. Industry Cost of Capital*, “Company and SIC List” (this document) is a list of the companies used in the approximate 170 U.S. industry analyses presented in the *2019 Valuation Handbook – U.S. Industry Cost of Capital, Quarterly Update 1* (data through June 2019). As such, the information herein is specific to the *2019 Valuation Handbook – Industry Cost of Capital, Quarterly Update 1* (data through June 2019), and is not applicable to any other book, update, or document.

## Company and SIC Lists

The company screening process used for identifying the main set of “healthy” companies used for the analyses presented in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* mimics the screening process employed in the Risk Premium Report Study Exhibits that are published in the *2019 Valuation Handbook – U.S. Guide to Cost of Capital*.

The set of companies remaining after this screening process (i) are “seasoned” companies in that they have been traded for several years, (ii) have been selling at least a minimal quantity of product or services, and (iii) have been able to achieve a degree of positive cash flow from operations. The last step in this screening process is identifying “pure play” companies. Pure play companies are defined here as those companies that derive at least 75% of their overall revenue from a single SIC code. The companies identified in this process (“Main Set”) are used in the analyses to calculate the “Median”, “SIC Composite”, “Large Composite”, and “Small Composite” metrics for each industry (data availability allowing). Please note that “high-financial-risk” companies (“High-Financial-Risk Set”) are identified and analyzed

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<sup>14</sup> The Quarterly Updates are now included, and are not sold separately.

<sup>15</sup> The *2019 Valuation Handbook – U.S. Industry Cost of Capital* was published with data through March 2019, and also includes June, September, and December (2019) Quarterly Updates.

<sup>16</sup> The *2019 Valuation Handbook – U.S. Guide to Cost of Capital* provides key year-end data previously available in (i) the Morningstar/Ibbotson S&P 500 Valuation Yearbook and (ii) the Duff & Phelps Risk Premium Report. The *2019 Valuation Handbook – U.S. Guide to Cost of Capital* can be used to develop cost of equity capital estimates for an individual business, business ownership interest, security, or intangible asset.

separately. A list of companies included in the High-Financial-Risk Set analyses is presented in Appendices C and D.

For a detailed discussion of the company set selection process employed in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* and its quarterly updates, please refer to the section entitled “Company Screening Process” in that book.

The following appendices are included herein:

### **Main Set**

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Appendix B: SIC Codes in which Companies (Main Set) are Included

### **High-Financial-Risk Set**

Appendix C: Companies (High-Financial-Risk Set) in Each Industry, by SIC Code

Appendix D: SIC Codes in which Companies (High-Financial-Risk Set) are Included

### **Standard Industrial Classification (SIC) Definitions**

Appendix E: Industry List by SIC Code

Appendix F: Industry List by Industry Name (alphabetical)



## Appendix A:

### Companies (Main Set) in Each Industry, by SIC Code

Appendix A is a list of the Main Set of companies used to calculate the "Median", "SIC Composite", "Large Composite", and "Small Composite" metrics for each SIC code (data availability allowing) in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* (data through December 2019).

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

**SIC 1**

Alliance Resource Partners, L.P.  
 Ameresco, Inc.  
 Beazer Homes USA, Inc.  
 Cabot Oil & Gas Corporation  
 Callon Petroleum Company  
 Century Communities, Inc.  
 Ciner Resources LP  
 Comfort Systems USA, Inc.  
 Compass Minerals International, Inc.  
 ConocoPhillips Company  
 Continental Resources, Inc.  
 D.R. Horton, Inc.  
 DCP Midstream, LP  
 Diamondback Energy, Inc.  
 EMCOR Group, Inc.  
 EOG Resources, Inc.  
 Evolution Petroleum Corporation  
 Fluor Corporation  
 Gold Resource Corporation  
 Granite Construction Incorporated  
 Green Brick Partners, Inc.  
 Hallador Energy Company  
 Helmerich & Payne, Inc.  
 IES Holdings, Inc.  
 Installed Building Products, Inc.  
 KB Home  
 Lennar Corporation  
 LGI Homes, Inc.  
 M.D.C. Holdings, Inc.  
 M/I Homes, Inc.  
 Martin Marietta Materials, Inc.  
 MasTec, Inc.  
 Matrix Service Company  
 Meritage Homes Corporation  
 MYR Group Inc.  
 Newmont Corporation  
 NVR, Inc.  
 Oasis Petroleum Inc.  
 Parsley Energy, Inc.  
 Pioneer Natural Resources Company  
 PrimeEnergy Resources Corporation  
 Primoris Services Corporation  
 PulteGroup, Inc.  
 Quanta Services, Inc.  
 RPC, Inc.  
 Southern Copper Corporation  
 Taylor Morrison Home Corporation  
 The Goldfield Corporation  
 Toll Brothers, Inc.

TRI Pointe Group, Inc.  
 Tutor Perini Corporation  
 U.S. Silica Holdings, Inc.  
 United States Lime & Minerals, Inc.  
 VOC Energy Trust  
 William Lyon Homes

**SIC 13**

Cabot Oil & Gas Corporation  
 Callon Petroleum Company  
 ConocoPhillips Company  
 Continental Resources, Inc.  
 DCP Midstream, LP  
 Diamondback Energy, Inc.  
 EOG Resources, Inc.  
 Evolution Petroleum Corporation  
 Helmerich & Payne, Inc.  
 Oasis Petroleum Inc.  
 Parsley Energy, Inc.  
 Pioneer Natural Resources Company  
 PrimeEnergy Resources Corporation  
 RPC, Inc.  
 VOC Energy Trust

**SIC 131**

Cabot Oil & Gas Corporation  
 Callon Petroleum Company  
 ConocoPhillips Company  
 Continental Resources, Inc.  
 DCP Midstream, LP  
 Diamondback Energy, Inc.  
 EOG Resources, Inc.  
 Evolution Petroleum Corporation  
 Oasis Petroleum Inc.  
 Parsley Energy, Inc.  
 Pioneer Natural Resources Company  
 PrimeEnergy Resources Corporation  
 VOC Energy Trust

**SIC 14**

Ciner Resources LP  
 Compass Minerals International, Inc.  
 Martin Marietta Materials, Inc.  
 U.S. Silica Holdings, Inc.  
 United States Lime & Minerals, Inc.

**SIC 15**

Beazer Homes USA, Inc.  
 Century Communities, Inc.  
 D.R. Horton, Inc.

Green Brick Partners, Inc.  
 KB Home  
 Lennar Corporation  
 LGI Homes, Inc.  
 M.D.C. Holdings, Inc.  
 M/I Homes, Inc.  
 Meritage Homes Corporation  
 NVR, Inc.  
 PulteGroup, Inc.  
 Taylor Morrison Home Corporation  
 Toll Brothers, Inc.  
 TRI Pointe Group, Inc.  
 William Lyon Homes

**SIC 16**

Ameresco, Inc.  
 Fluor Corporation  
 Granite Construction Incorporated  
 MasTec, Inc.  
 MYR Group Inc.  
 Primoris Services Corporation  
 The Goldfield Corporation

**SIC 2**

AbbVie Inc.  
 ACCO Brands Corporation  
 Air Products and Chemicals, Inc.  
 Albemarle Corporation  
 Alexion Pharmaceuticals, Inc.  
 Altria Group, Inc.  
 American Vanguard Corporation  
 American Woodmark Corporation  
 Amgen Inc.  
 ANI Pharmaceuticals, Inc.  
 Anika Therapeutics, Inc.  
 Archer-Daniels-Midland Company  
 Ashland Global Holdings Inc.  
 Avery Dennison Corporation  
 B&G Foods, Inc.  
 Balchem Corporation  
 Bassett Furniture Industries, Incorporated  
 Baxter International Inc.  
 Biogen Inc.  
 BioSpecifics Technologies Corp.  
 Bio-Techne Corporation  
 Bridgford Foods Corporation  
 Bristol-Myers Squibb Company  
 Brown-Forman Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Builders FirstSource, Inc.	Herman Miller, Inc.	Neenah, Inc.
Cabot Corporation	Heska Corporation	Nektar Therapeutics
Cabot Microelectronics Corporation	Hexcel Corporation	Neogen Corporation
Campbell Soup Company	HNI Corporation	NewMarket Corporation
Carter's, Inc.	HollyFrontier Corporation	Nova LifeStyle, Inc.
Catalent, Inc.	Hooker Furniture Corporation	Nu Skin Enterprises, Inc.
Cavco Industries, Inc.	Hormel Foods Corporation	Ocean Bio-Chem, Inc.
Celanese Corporation	Huntsman Corporation	Olin Corporation
CF Industries Holdings, Inc.	IDEXX Laboratories, Inc.	OraSure Technologies, Inc.
Chevron Corporation	IKONICS Corporation	Oxford Industries, Inc.
Church & Dwight Co., Inc.	Ingredion Incorporated	P. H. Glatfelter Company
Clearwater Paper Corporation	Innophos Holdings, Inc.	Packaging Corporation of America
Coca-Cola Consolidated, Inc.	Innospec Inc.	Patrick Industries, Inc.
Colgate-Palmolive Company	Innoviva, Inc.	PBF Energy Inc.
Columbia Sportswear Company	Inter Parfums, Inc.	PepsiCo, Inc.
Conagra Brands, Inc.	Interface, Inc.	Pfizer Inc.
Corcept Therapeutics Incorporated	International Flavors & Fragrances Inc.	Phibro Animal Health Corporation
Craft Brew Alliance, Inc.	International Paper Company	Phillips 66
Crown Crafts, Inc.	IT Tech Packaging, Inc.	Pilgrim's Pride Corporation
Culp, Inc.	J & J Snack Foods Corp.	PPG Industries, Inc.
CVR Energy, Inc.	John B. Sanfilippo & Son, Inc.	PVH Corp.
Darling Ingredients Inc.	John Wiley & Sons, Inc.	Quaker Chemical Corporation
Delek US Holdings, Inc.	Kellogg Company	Quidel Corporation
Delta Apparel, Inc.	Kimball International, Inc.	Ralph Lauren Corporation
Deluxe Corporation	Kimberly-Clark Corporation	Regeneron Pharmaceuticals, Inc.
DiversiFAX, Inc.,	Knoll, Inc.	Renewable Energy Group, Inc.
Domtar Corporation	Kraton Corporation	Repligen Corporation
DuPont de Nemours, Inc.	Kronos Worldwide, Inc.	REX American Resources Corporation
Eastman Chemical Company	Lancaster Colony Corporation	RPM International Inc.
Eli Lilly and Company	Landec Corporation	Sanderson Farms, Inc.
Emergent BioSolutions Inc.	Lear Corporation	Scholastic Corporation
Enanta Pharmaceuticals, Inc.	LifeVantage Corporation	Schweitzer-Mauduit International, Inc.
Ethan Allen Interiors Inc.	Lifeway Foods, Inc.	Seneca Foods Corporation
Ever-Glory International Group, Inc.	Ligand Pharmaceuticals Incorporated	Sensient Technologies Corporation
Exelixis, Inc.	Louisiana-Pacific Corporation	SIGA Technologies, Inc.
Exxon Mobil Corporation	Luminex Corporation	Sleep Number Corporation
Farmer Bros. Co.	Mannatech, Incorporated	Sonoco Products Company
Ferro Corporation	McCormick & Company, Incorporated	Stepan Company
Flexible Solutions International Inc.	Medifast, Inc.	Supernus Pharmaceuticals, Inc.
Flexsteel Industries, Inc.	Mercer International Inc.	Tempur Sealy International, Inc.
Flowers Foods, Inc.	Merck & Co., Inc.	The Boston Beer Company, Inc.
FMC Corporation	Meridian Bioscience, Inc.	The Clorox Company
FutureFuel Corp.	MGP Ingredients, Inc.	The Coca-Cola Company
Gannett Co., Inc.	Mohawk Industries, Inc.	The Estée Lauder Companies Inc.
General Mills, Inc.	Molson Coors Beverage Company	The Hain Celestial Group, Inc.
G-III Apparel Group, Ltd.	Mondelez International, Inc.	The Hershey Company
Gilead Sciences, Inc.	Monster Beverage Corporation	The J. M. Smucker Company
Graphic Packaging Holding Company	Myriad Genetics, Inc.	The Mosaic Company
Greif, Inc.	National Beverage Corp.	
Guess?, Inc.	Natural Alternatives International, Inc.	
H.B. Fuller Company	Nature's Sunshine Products, Inc.	
Hanesbrands Inc.		

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

The New York Times Company  
 The Procter & Gamble Company  
 The Scotts Miracle-Gro Company  
 The Sherwin-Williams Company  
 Tootsie Roll Industries, Inc.  
 Treco Resources  
 Trex Company, Inc.  
 Tribune Publishing Company  
 Tyson Foods, Inc.  
 Under Armour, Inc.  
 Unifi, Inc.  
 UniFirst Corporation  
 United Therapeutics Corporation  
 United-Guardian, Inc.  
 Universal Forest Products, Inc.  
 USANA Health Sciences, Inc.  
 Valero Energy Corporation  
 Valhi, Inc.  
 Value Line, Inc.  
 Vertex Pharmaceuticals Incorporated  
 Virco Mfg. Corporation  
 W. R. Grace & Co.  
 WD-40 Company  
 Westlake Chemical Corporation  
 Westlake Chemical Partners LP  
 WestRock Company  
 Willamette Valley Vineyards, Inc.  
 Zoetis Inc.

**SIC 20**

Archer-Daniels-Midland Company  
 B&G Foods, Inc.  
 Bridgford Foods Corporation  
 Brown-Forman Corporation  
 Campbell Soup Company  
 Coca-Cola Consolidated, Inc.  
 Conagra Brands, Inc.  
 Craft Brew Alliance, Inc.  
 Darling Ingredients Inc.  
 Farmer Bros. Co.  
 Flowers Foods, Inc.  
 General Mills, Inc.  
 Hormel Foods Corporation  
 Ingredient Incorporated  
 J & J Snack Foods Corp.  
 John B. Sanfilippo & Son, Inc.  
 Kellogg Company

Lancaster Colony Corporation  
 Landec Corporation  
 Lifeway Foods, Inc.  
 McCormick & Company, Incorporated  
 Medifast, Inc.  
 MGP Ingredients, Inc.  
 Molson Coors Beverage Company  
 Mondelez International, Inc.  
 Monster Beverage Corporation  
 National Beverage Corp.  
 PepsiCo, Inc.  
 Pilgrim's Pride Corporation  
 Sanderson Farms, Inc.  
 Seneca Foods Corporation  
 The Boston Beer Company, Inc.  
 The Coca-Cola Company  
 The Hain Celestial Group, Inc.  
 The Hershey Company  
 The J. M. Smucker Company  
 Tootsie Roll Industries, Inc.  
 Tyson Foods, Inc.  
 Willamette Valley Vineyards, Inc.

**SIC 201**

Bridgford Foods Corporation  
 Hormel Foods Corporation  
 Pilgrim's Pride Corporation  
 Sanderson Farms, Inc.  
 Tyson Foods, Inc.

**SIC 203**

B&G Foods, Inc.  
 Lancaster Colony Corporation  
 Landec Corporation  
 Seneca Foods Corporation  
 The J. M. Smucker Company

**SIC 208**

Brown-Forman Corporation  
 Coca-Cola Consolidated, Inc.  
 Craft Brew Alliance, Inc.  
 MGP Ingredients, Inc.  
 Molson Coors Beverage Company  
 Monster Beverage Corporation  
 National Beverage Corp.  
 PepsiCo, Inc.  
 The Boston Beer Company, Inc.  
 The Coca-Cola Company

Willamette Valley Vineyards, Inc.

**SIC 22**

Crown Crafts, Inc.  
 Culp, Inc.  
 Interface, Inc.  
 Mohawk Industries, Inc.  
 Unifi, Inc.

**SIC 23**

Carter's, Inc.  
 Columbia Sportswear Company  
 Delta Apparel, Inc.  
 Ever-Glory International Group, Inc.  
 G-III Apparel Group, Ltd.  
 Guess?, Inc.  
 Hanesbrands Inc.  
 Oxford Industries, Inc.  
 PVH Corp.  
 Ralph Lauren Corporation  
 Under Armour, Inc.  
 UniFirst Corporation

**SIC 24**

American Woodmark Corporation  
 Builders FirstSource, Inc.  
 Cavco Industries, Inc.  
 Louisiana-Pacific Corporation  
 Patrick Industries, Inc.  
 Trex Company, Inc.  
 Universal Forest Products, Inc.

**SIC 25**

Bassett Furniture Industries, Incorporated  
 Ethan Allen Interiors Inc.  
 Flexsteel Industries, Inc.  
 Herman Miller, Inc.  
 HNI Corporation  
 Hooker Furniture Corporation  
 Kimball International, Inc.  
 Knoll, Inc.  
 Lear Corporation  
 Nova LifeStyle, Inc.  
 Sleep Number Corporation  
 Tempur Sealy International, Inc.  
 Virco Mfg. Corporation

**SIC 251**

Bassett Furniture Industries, Incorporated  
 Ethan Allen Interiors Inc.  
 Flexsteel Industries, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Hooker Furniture Corporation  
Nova LifeStyle, Inc.  
Sleep Number Corporation  
Tempur Sealy International, Inc.

American Vanguard Corporation  
Amgen Inc.  
ANI Pharmaceuticals, Inc.  
Anika Therapeutics, Inc.  
Ashland Global Holdings Inc.

Myriad Genetics, Inc.  
Natural Alternatives International, Inc.  
Nature's Sunshine Products, Inc.  
Nektar Therapeutics  
Neogen Corporation  
NewMarket Corporation  
Nu Skin Enterprises, Inc.  
Ocean Bio-Chem, Inc.  
Olin Corporation  
OraSure Technologies, Inc.  
Pfizer Inc.

**SIC 26**

Avery Dennison Corporation  
Clearwater Paper Corporation  
Domtar Corporation  
Graphic Packaging Holding Company  
Greif, Inc.  
International Paper Company  
IT Tech Packaging, Inc.  
Kimberly-Clark Corporation  
Mercer International Inc.  
Neenah, Inc.  
P. H. Glatfelter Company  
Packaging Corporation of America  
Sonoco Products Company  
WestRock Company

Balchem Corporation  
Baxter International Inc.  
Biogen Inc.  
BioSpecifics Technologies Corp.  
Bio-Techne Corporation  
Bristol-Myers Squibb Company  
Cabot Corporation  
Cabot Microelectronics Corporation  
Catalent, Inc.  
Celanese Corporation  
CF Industries Holdings, Inc.  
Church & Dwight Co., Inc.  
Colgate-Palmolive Company

Phibro Animal Health Corporation  
PPG Industries, Inc.  
Quidel Corporation  
Regeneron Pharmaceuticals, Inc.  
Repligen Corporation  
REX American Resources Corporation  
RPM International Inc.

**SIC 262**

Domtar Corporation  
IT Tech Packaging, Inc.  
Kimberly-Clark Corporation  
Neenah, Inc.  
P. H. Glatfelter Company

Corcept Therapeutics Incorporated  
DiversiFax, Inc.,  
DuPont de Nemours, Inc.  
Eastman Chemical Company  
Eli Lilly and Company  
Emergent BioSolutions Inc.  
Enanta Pharmaceuticals, Inc.

Sensient Technologies Corporation  
SIGA Technologies, Inc.  
Stepan Company  
Supernus Pharmaceuticals, Inc.  
The Clorox Company  
The Estée Lauder Companies Inc.  
The Mosaic Company

**SIC 265**

Graphic Packaging Holding Company  
Greif, Inc.  
Packaging Corporation of America  
Sonoco Products Company  
WestRock Company

Exelixis, Inc.  
Ferro Corporation  
Flexible Solutions International Inc.  
FMC Corporation  
FutureFuel Corp.  
Gilead Sciences, Inc.  
H.B. Fuller Company  
Heska Corporation  
Hexcel Corporation

The Scotts Miracle-Gro Company  
The Sherwin-Williams Company  
United Therapeutics Corporation  
United-Guardian, Inc.  
USANA Health Sciences, Inc.  
Valhi, Inc.

**SIC 27**

ACCO Brands Corporation  
Deluxe Corporation  
Gannett Co., Inc.  
John Wiley & Sons, Inc.  
Scholastic Corporation  
The New York Times Company  
Tribune Publishing Company  
Value Line, Inc.

Huntsman Corporation  
IDEXX Laboratories, Inc.  
IKONICS Corporation  
Innophos Holdings, Inc.  
Innospec Inc.  
Innoviva, Inc.  
Inter Parfums, Inc.  
International Flavors & Fragrances Inc.

Vertex Pharmaceuticals Incorporated  
W. R. Grace & Co.  
WD-40 Company  
Westlake Chemical Corporation  
Westlake Chemical Partners LP  
Zoetis Inc.

**SIC 28**

AbbVie Inc.  
Air Products and Chemicals, Inc.  
Albemarle Corporation  
Alexion Pharmaceuticals, Inc.

Kraton Corporation  
Kronos Worldwide, Inc.  
LifeVantage Corporation  
Ligand Pharmaceuticals Incorporated  
Luminex Corporation  
Mannatech, Incorporated  
Merck & Co., Inc.  
Meridian Bioscience, Inc.

**SIC 281**

Air Products and Chemicals, Inc.  
DiversiFax, Inc.,  
Flexible Solutions International Inc.  
Innophos Holdings, Inc.  
Kronos Worldwide, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Valhi, Inc.  
W. R. Grace & Co.

Vertex Pharmaceuticals  
Incorporated  
Zoetis Inc.

SIGA Technologies, Inc.

**SIC 283**

AbbVie Inc.  
Alexion Pharmaceuticals,  
Inc.  
Amgen Inc.  
ANI Pharmaceuticals, Inc.  
Anika Therapeutics, Inc.  
Balchem Corporation  
Baxter International Inc.  
Biogen Inc.  
BioSpecifics Technologies  
Corp.  
Bio-Techne Corporation  
Bristol-Myers Squibb  
Company  
Catalent, Inc.  
Corcept Therapeutics  
Incorporated  
Eli Lilly and Company  
Emergent BioSolutions Inc.  
Enanta Pharmaceuticals,  
Inc.  
Exelixis, Inc.  
Gilead Sciences, Inc.  
Heska Corporation  
IDEXX Laboratories, Inc.  
Innoviva, Inc.  
LifeVantage Corporation  
Ligand Pharmaceuticals  
Incorporated  
Luminex Corporation  
Mannatech, Incorporated  
Merck & Co., Inc.  
Meridian Bioscience, Inc.  
Myriad Genetics, Inc.  
Natural Alternatives  
International, Inc.  
Nature's Sunshine  
Products, Inc.  
Nektar Therapeutics  
Neogen Corporation  
Nu Skin Enterprises, Inc.  
OraSure Technologies, Inc.  
Pfizer Inc.  
Phibro Animal Health  
Corporation  
Quidel Corporation  
Regeneron  
Pharmaceuticals, Inc.  
Repligen Corporation  
SIGA Technologies, Inc.  
Supernus Pharmaceuticals,  
Inc.  
United Therapeutics  
Corporation  
United-Guardian, Inc.  
USANA Health Sciences,  
Inc.

**SIC 2834**

ANI Pharmaceuticals, Inc.  
Balchem Corporation  
Baxter International Inc.  
BioSpecifics Technologies  
Corp.  
Bristol-Myers Squibb  
Company  
Corcept Therapeutics  
Incorporated  
Eli Lilly and Company  
Innoviva, Inc.  
LifeVantage Corporation  
Ligand Pharmaceuticals  
Incorporated  
Mannatech, Incorporated  
Merck & Co., Inc.  
Natural Alternatives  
International, Inc.  
Nature's Sunshine  
Products, Inc.  
Nektar Therapeutics  
Nu Skin Enterprises, Inc.  
Pfizer Inc.  
Regeneron  
Pharmaceuticals, Inc.  
Supernus Pharmaceuticals,  
Inc.  
United Therapeutics  
Corporation  
United-Guardian, Inc.  
USANA Health Sciences,  
Inc.  
Vertex Pharmaceuticals  
Incorporated  
Zoetis Inc.

**SIC 2835**

Heska Corporation  
IDEXX Laboratories, Inc.  
Luminex Corporation  
Myriad Genetics, Inc.  
OraSure Technologies, Inc.  
Quidel Corporation

**SIC 2836**

AbbVie Inc.  
Alexion Pharmaceuticals,  
Inc.  
Amgen Inc.  
Anika Therapeutics, Inc.  
Biogen Inc.  
Emergent BioSolutions Inc.  
Enanta Pharmaceuticals,  
Inc.  
Exelixis, Inc.  
Gilead Sciences, Inc.  
Repligen Corporation

**SIC 284**

Church & Dwight Co., Inc.  
Colgate-Palmolive  
Company  
IKONICS Corporation  
Inter Parfums, Inc.  
Ocean Bio-Chem, Inc.  
The Clorox Company  
The Estée Lauder  
Companies Inc.

**SIC 286**

FutureFuel Corp.  
NewMarket Corporation  
REX American Resources  
Corporation  
Sensient Technologies  
Corporation  
Westlake Chemical  
Corporation  
Westlake Chemical  
Partners LP

**SIC 287**

American Vanguard  
Corporation  
CF Industries Holdings, Inc.  
FMC Corporation  
The Mosaic Company  
The Scotts Miracle-Gro  
Company

**SIC 29**

Chevron Corporation  
CVR Energy, Inc.  
Delek US Holdings, Inc.  
Exxon Mobil Corporation  
HollyFrontier Corporation  
PBF Energy Inc.  
Phillips 66  
Quaker Chemical  
Corporation  
Renewable Energy Group,  
Inc.  
Trecora Resources  
Valero Energy Corporation

**SIC 291**

Chevron Corporation  
CVR Energy, Inc.  
Delek US Holdings, Inc.  
Exxon Mobil Corporation  
HollyFrontier Corporation  
PBF Energy Inc.  
Phillips 66  
Trecora Resources  
Valero Energy Corporation

**SIC 3**

A. O. Smith Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

AAON, Inc.	Bruker Corporation	Donaldson Company, Inc.
Abiomed, Inc.	Brunswick Corporation	Dorman Products, Inc.
Acme United Corporation	BWX Technologies, Inc.	Douglas Dynamics, Inc.
Acuity Brands, Inc.	Caleres, Inc.	Dover Corporation
ADTRAN, Inc.	Callaway Golf Company	Dril-Quip, Inc.
Advanced Drainage Systems, Inc.	Cantel Medical Corp.	Ducommun Incorporated
Advanced Energy Industries, Inc.	Carpenter Technology Corporation	Eagle Materials Inc.
AeroVironment, Inc.	Caterpillar Inc.	EchoStar Corporation
AGCO Corporation	Cemtrex, Inc.	Edwards Lifesciences Corporation
Alamo Group Inc.	Chicago Rivet & Machine Co.	Electromed, Inc.
Align Technology, Inc.	China Automotive Systems, Inc.	Electro-Sensors, Inc.
Allied Motion Technologies Inc.	Ciena Corporation	Emerson Electric Co.
Allison Transmission Holdings, Inc.	CIRCOR International, Inc.	Encore Wire Corporation
Altra Industrial Motion Corp.	Cirrus Logic, Inc.	EnerSys
American Axle & Manufacturing Holdings, Inc.	Cisco Systems, Inc.	EnPro Industries, Inc.
American Outdoor Brands Corporation	Clearfield, Inc.	Entegris, Inc.
AMETEK, Inc.	Coda Octopus Group, Inc.	Escalade, Incorporated
Amkor Technology, Inc.	Cognex Corporation	ESCO Technologies Inc.
Amphenol Corporation	Coherent, Inc.	Espey Mfg. & Electronics Corp.
Amtech Systems, Inc.	Cohu, Inc.	FARO Technologies, Inc.
Analog Devices, Inc.	Colfax Corporation	Federal Signal Corporation
Apple Inc.	Columbus McKinnon Corporation	First Solar, Inc.
Applied Materials, Inc.	Commercial Metals Company	FLIR Systems, Inc.
Applied Optoelectronics, Inc.	Commercial Vehicle Group, Inc.	Flowserve Corporation
AptarGroup, Inc.	CommScope Holding Company, Inc.	FormFactor, Inc.
Arista Networks, Inc.	CompX International Inc.	Fortinet, Inc.
Armstrong World Industries, Inc.	Comtech Telecommunications Corp.	Fossil Group, Inc.
Astec Industries, Inc.	CONMED Corporation	Fox Factory Holding Corp.
Astronics Corporation	Continental Building Products, Inc.	Franklin Electric Co., Inc.
AstroNova, Inc.	Cooper Tire & Rubber Company	Friedman Industries, Incorporated
Atrion Corporation	Cooper-Standard Holdings Inc.	Genasys Inc.
Autoliv, Inc.	Core Molding Technologies, Inc.	Gencor Industries, Inc.
AVX Corporation	Cornerstone Building Brands, Inc.	Generac Holdings Inc.
Axcelis Technologies, Inc.	Corning Incorporated	General Dynamics Corporation
Axon Enterprise, Inc.	Crane Co.	General Motors Company
AXT, Inc.	Crown Holdings, Inc.	Gentex Corporation
Badger Meter, Inc.	CTS Corporation	Gentherm Incorporated
Ball Corporation	Cubic Corporation	Globus Medical, Inc.
Barnes Group Inc.	Curtiss-Wright Corporation	Graco Inc.
Becton, Dickinson and Company	CVD Equipment Corporation	Graham Corporation
Belden Inc.	CyberOptics Corporation	Griffon Corporation
Benchmark Electronics, Inc.	Daktronics, Inc.	Haemonetics Corporation
Bio-Rad Laboratories, Inc.	Dana Incorporated	Harley-Davidson, Inc.
BK Technologies Corporation	Danaher Corporation	Harsco Corporation
BorgWarner Inc.	Data I/O Corporation	Hasbro, Inc.
Boston Scientific Corporation	Deere & Company	Haynes International, Inc.
Brady Corporation	Digi International Inc.	HEICO Corporation
Briggs & Stratton Corporation	Diodes Incorporated	Helios Technologies, Inc.
Broadcom Inc.		Hillenbrand, Inc.
		Hologic, Inc.
		HP Inc.
		Hubbell Incorporated
		Huntington Ingalls Industries, Inc.
		Hurco Companies, Inc.
		Hyster-Yale Materials Handling, Inc.
		ICU Medical, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

IDEX Corporation	Mettler-Toledo International Inc.	Preformed Line Products Company
IEC Electronics Corp.	Microchip Technology Incorporated	Pro-Dex, Inc.
II-VI Incorporated	Micron Technology, Inc.	Proto Labs, Inc.
Illinois Tool Works Inc.	Miller Industries, Inc.	Qorvo, Inc.
Illumina, Inc.	Mitek Systems, Inc.	QUALCOMM Incorporated
Inogen, Inc.	MKS Instruments, Inc.	Quanex Building Products Corporation
Insteel Industries, Inc.	Modine Manufacturing Company	Raven Industries, Inc.
Integer Holdings Corporation	Monolithic Power Systems, Inc.	Raytheon Company
Integra LifeSciences Holdings Corporation	Moog Inc.	RBC Bearings Incorporated
Intel Corporation	Motorcar Parts of America, Inc.	Regal Beloit Corporation
inTEST Corporation	Movado Group, Inc.	ResMed Inc.
IntriCon Corporation	MSA Safety Incorporated	Rexnord Corporation
Intuitive Surgical, Inc.	MTS Systems Corporation	RF Industries, Ltd.
IPG Photonics Corporation	Mueller Industries, Inc.	Rockwell Automation, Inc.
IRadimed Corporation	Mueller Water Products, Inc.	Rocky Brands, Inc.
iRobot Corporation	Napco Security Technologies, Inc.	Rogers Corporation
ITT Inc.	National Presto Industries, Inc.	Roper Technologies, Inc.
Jabil Inc.	Natus Medical Incorporated	Sanmina Corporation
John Bean Technologies Corporation	Nautilus, Inc.	Sealed Air Corporation
Johnson Outdoors Inc.	NetApp, Inc.	Semtech Corporation
Juniper Networks, Inc.	NETGEAR, Inc.	Servotronics, Inc.
Kadant Inc.	NIKE, Inc.	Shiloh Industries, Inc.
Kaiser Aluminum Corporation	Nordson Corporation	SigmaTron International, Inc.
KEMET Corporation	Northrop Grumman Corporation	Silgan Holdings Inc.
Kewaunee Scientific Corporation	Nucor Corporation	Silicon Laboratories Inc.
Key Tronic Corporation	NuVasive, Inc.	Simpson Manufacturing Co., Inc.
Kimball Electronics, Inc.	NVE Corporation	Skechers U.S.A., Inc.
KLA Corporation	NVIDIA Corporation	Skyworks Solutions, Inc.
Kulicke and Soffa Industries, Inc.	O-I Glass, Inc.	Snap-on Incorporated
L3Harris Technologies, Inc.	Oil-Dri Corporation of America	Socket Mobile, Inc.
Lakeland Industries, Inc.	Omega Flex, Inc.	SORL Auto Parts, Inc.
Lam Research Corporation	ON Semiconductor Corporation	Spartan Motors, Inc.
LCI Industries	OneSpan Inc.	Spirit AeroSystems Holdings, Inc.
LeMaitre Vascular, Inc.	Onto Innovation Inc.	SPX Corporation
Lennox International Inc.	Orthofix Medical Inc.	Standard Motor Products, Inc.
Lifetime Brands, Inc.	Oshkosh Corporation	Standex International Corporation
LightPath Technologies, Inc.	OSI Systems, Inc.	Stanley Black & Decker, Inc.
Lincoln Electric Holdings, Inc.	Owens Corning	Steel Dynamics, Inc.
Lindsay Corporation	PACCAR Inc	Steven Madden, Ltd.
Littelfuse, Inc.	Parker-Hannifin Corporation	Stoneridge, Inc.
Lockheed Martin Corporation	PDF Solutions, Inc.	Strattec Security Corporation
Lydall, Inc.	PerkinElmer, Inc.	Stryker Corporation
Malibu Boats, Inc.	PGT Innovations, Inc.	Sturm, Ruger & Company, Inc.
Marine Products Corporation	Photronics, Inc.	SunCoke Energy, Inc.
Masimo Corporation	Plantronics, Inc.	Synalloy Corporation
Materion Corporation	Plexus Corp.	Synaptics Incorporated
Maxim Integrated Products, Inc.	Polaris Inc.	Tapestry, Inc.
Mercury Systems, Inc.	Powell Industries, Inc.	Taylor Devices, Inc.
Merit Medical Systems, Inc.	Power Integrations, Inc.	Teledyne Technologies Incorporated
Meritor, Inc.		Teleflex Incorporated
Mesa Laboratories, Inc.		Tennant Company
Methode Electronics, Inc.		Teradyne, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Terex Corporation  
 Texas Instruments Incorporated  
 Textron Inc.  
 The Boeing Company  
 The Cooper Companies, Inc.  
 The Eastern Company  
 The Goodyear Tire & Rubber Company  
 The Gorman-Rupp Company  
 The Greenbrier Companies, Inc.  
 The Middleby Corporation  
 The Timken Company  
 The Toro Company  
 Thermo Fisher Scientific Inc.  
 Thermon Group Holdings, Inc.  
 Thor Industries, Inc.  
 TransAct Technologies Incorporated  
 Tredegar Corporation  
 TriMas Corporation  
 Trimble Inc.  
 Trinity Industries, Inc.  
 TTM Technologies, Inc.  
 Tupperware Brands Corporation  
 U.S. Concrete, Inc.  
 Ubiquiti Inc.  
 UFP Technologies, Inc.  
 Ultra Clean Holdings, Inc.  
 Ultralife Corporation  
 United Technologies Corporation  
 Universal Display Corporation  
 Universal Electronics Inc.  
 Utah Medical Products, Inc.  
 Valmont Industries, Inc.  
 Varian Medical Systems, Inc.  
 Vera Bradley, Inc.  
 Vicor Corporation  
 VirTra, Inc.  
 Vishay Intertechnology, Inc.  
 Vishay Precision Group, Inc.  
 Visteon Corporation  
 Wabash National Corporation  
 WABCO Holdings Inc.  
 Wabtec Corporation  
 Waters Corporation  
 Watts Water Technologies, Inc.  
 West Pharmaceutical Services  
 Western Digital Corporation  
 Whirlpool Corporation

Winnebago Industries, Inc.  
 Wolverine World Wide, Inc.  
 Woodward, Inc.  
 Worthington Industries, Inc.  
 Xerox Holdings Corporation  
 Xilinx, Inc.  
 XPEL, Inc.  
 Xylem Inc.  
 ZAGG Inc  
 Zebra Technologies Corporation  
 Zimmer Biomet Holdings, Inc.

**SIC 30**

Advanced Drainage Systems, Inc.  
 AptarGroup, Inc.  
 Cooper Tire & Rubber Company  
 Core Molding Technologies, Inc.  
 NIKE, Inc.  
 Sealed Air Corporation  
 The Goodyear Tire & Rubber Company  
 Tupperware Brands Corporation  
 UFP Technologies, Inc.  
 West Pharmaceutical Services

**SIC 308**

Advanced Drainage Systems, Inc.  
 AptarGroup, Inc.  
 Core Molding Technologies, Inc.  
 Sealed Air Corporation  
 Tupperware Brands Corporation  
 UFP Technologies, Inc.

**SIC 31**

Caleres, Inc.  
 Rocky Brands, Inc.  
 Skechers U.S.A., Inc.  
 Steven Madden, Ltd.  
 Tapestry, Inc.  
 Vera Bradley, Inc.  
 Wolverine World Wide, Inc.

**SIC 32**

Armstrong World Industries, Inc.  
 Continental Building Products, Inc.  
 Eagle Materials Inc.  
 O-I Glass, Inc.  
 Oil-Dri Corporation of America  
 Owens Corning

U.S. Concrete, Inc.  
 ZAGG Inc

**SIC 33**

Carpenter Technology Corporation  
 Commercial Metals Company  
 Encore Wire Corporation  
 Friedman Industries, Incorporated  
 Haynes International, Inc.  
 Insteel Industries, Inc.  
 Kaiser Aluminum Corporation  
 Materion Corporation  
 Mueller Industries, Inc.  
 Steel Dynamics, Inc.  
 SunCoke Energy, Inc.  
 Synalloy Corporation

**SIC 331**

Carpenter Technology Corporation  
 Commercial Metals Company  
 Friedman Industries, Incorporated  
 Haynes International, Inc.  
 Insteel Industries, Inc.  
 Steel Dynamics, Inc.  
 SunCoke Energy, Inc.  
 Synalloy Corporation

**SIC 34**

Acme United Corporation  
 Axon Enterprise, Inc.  
 Ball Corporation  
 Chicago Rivet & Machine Co.  
 CompX International Inc.  
 Cornerstone Building Brands, Inc.  
 Crown Holdings, Inc.  
 Graham Corporation  
 Griffon Corporation  
 Helios Technologies, Inc.  
 Lifetime Brands, Inc.  
 Mueller Water Products, Inc.  
 Omega Flex, Inc.  
 Parker-Hannifin Corporation  
 PGT Innovations, Inc.  
 Quanex Building Products Corporation  
 Shiloh Industries, Inc.  
 Silgan Holdings Inc.  
 Simpson Manufacturing Co., Inc.  
 Sturm, Ruger & Company, Inc.  
 The Eastern Company

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Watts Water Technologies, Inc.

**SIC 342**

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Acme United Corporation  
CompX International Inc.  
Lifetime Brands, Inc.  
Simpson Manufacturing Co., Inc.  
The Eastern Company

**SIC 349**

---

Helios Technologies, Inc.  
Mueller Water Products, Inc.  
Omega Flex, Inc.  
Parker-Hannifin Corporation  
Watts Water Technologies, Inc.

**SIC 35**

---

AAON, Inc.  
AGCO Corporation  
Alamo Group Inc.  
Altra Industrial Motion Corp.  
Amtech Systems, Inc.  
Applied Materials, Inc.  
Arista Networks, Inc.  
Astec Industries, Inc.  
Axcelis Technologies, Inc.  
Briggs & Stratton Corporation  
BWX Technologies, Inc.  
Cisco Systems, Inc.  
Colfax Corporation  
Columbus McKinnon Corporation  
CVD Equipment Corporation  
Deere & Company  
Digi International Inc.  
Dover Corporation  
Dril-Quip, Inc.  
Entegris, Inc.  
Fortinet, Inc.  
Gencor Industries, Inc.  
Graco Inc.  
HP Inc.  
Hyster-Yale Materials Handling, Inc.  
IDEX Corporation  
John Bean Technologies Corporation  
Juniper Networks, Inc.  
Kadant Inc.  
Kulicke and Soffa Industries, Inc.  
Lam Research Corporation  
Lennox International Inc.  
Lincoln Electric Holdings, Inc.

Lindsay Corporation  
Mitek Systems, Inc.  
NetApp, Inc.  
NETGEAR, Inc.  
Nordson Corporation  
PDF Solutions, Inc.  
Proto Labs, Inc.  
RBC Bearings Incorporated  
Rexnord Corporation  
Taylor Devices, Inc.  
Tennant Company  
Terex Corporation  
The Gorman-Rupp Company  
The Middleby Corporation  
The Timken Company  
The Toro Company  
TransAct Technologies Incorporated  
Western Digital Corporation  
Xerox Holdings Corporation  
Zebra Technologies Corporation

**SIC 353**

---

Astec Industries, Inc.  
Columbus McKinnon Corporation  
Dril-Quip, Inc.  
Hyster-Yale Materials Handling, Inc.  
Terex Corporation

**SIC 355**

---

Amtech Systems, Inc.  
Applied Materials, Inc.  
Axcelis Technologies, Inc.  
CVD Equipment Corporation  
Entegris, Inc.  
Kadant Inc.  
Kulicke and Soffa Industries, Inc.  
Lam Research Corporation  
PDF Solutions, Inc.  
Proto Labs, Inc.

**SIC 3559**

---

Amtech Systems, Inc.  
Applied Materials, Inc.  
Axcelis Technologies, Inc.  
CVD Equipment Corporation  
Entegris, Inc.  
Kulicke and Soffa Industries, Inc.  
Lam Research Corporation  
PDF Solutions, Inc.  
Proto Labs, Inc.

**SIC 356**

---

Altra Industrial Motion Corp.  
Gencor Industries, Inc.  
Graco Inc.  
Nordson Corporation  
RBC Bearings Incorporated  
Rexnord Corporation  
Taylor Devices, Inc.  
The Gorman-Rupp Company  
The Timken Company

**SIC 357**

---

Arista Networks, Inc.  
Cisco Systems, Inc.  
Digi International Inc.  
Fortinet, Inc.  
HP Inc.  
Juniper Networks, Inc.  
Mitek Systems, Inc.  
NetApp, Inc.  
NETGEAR, Inc.  
TransAct Technologies Incorporated  
Western Digital Corporation  
Xerox Holdings Corporation  
Zebra Technologies Corporation

**SIC 3577**

---

Fortinet, Inc.  
Mitek Systems, Inc.  
TransAct Technologies Incorporated  
Xerox Holdings Corporation  
Zebra Technologies Corporation

**SIC 36**

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A. O. Smith Corporation  
Acuity Brands, Inc.  
ADTRAN, Inc.  
Advanced Energy Industries, Inc.  
Allied Motion Technologies Inc.  
Amkor Technology, Inc.  
Amphenol Corporation  
Analog Devices, Inc.  
Apple Inc.  
Applied Optoelectronics, Inc.  
Astronics Corporation  
AVX Corporation  
AXT, Inc.  
Belden Inc.  
Benchmark Electronics, Inc.  
BK Technologies Corporation  
Broadcom Inc.  
Ciena Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Cirrus Logic, Inc.  
 Clearfield, Inc.  
 CommScope Holding Company, Inc.  
 Comtech Telecommunications Corp.  
 CTS Corporation  
 Diodes Incorporated  
 EchoStar Corporation  
 EnerSys  
 Espey Mfg. & Electronics Corp.  
 First Solar, Inc.  
 Franklin Electric Co., Inc.  
 Genasys Inc.  
 Generac Holdings Inc.  
 IEC Electronics Corp.  
 Intel Corporation  
 IPG Photonics Corporation  
 Jabil Inc.  
 KEMET Corporation  
 Key Tronic Corporation  
 Kimball Electronics, Inc.  
 Littelfuse, Inc.  
 Maxim Integrated Products, Inc.  
 Mercury Systems, Inc.  
 Methode Electronics, Inc.  
 Microchip Technology Incorporated  
 Micron Technology, Inc.  
 Monolithic Power Systems, Inc.  
 Motorcar Parts of America, Inc.  
 Napco Security Technologies, Inc.  
 NVE Corporation  
 NVIDIA Corporation  
 ON Semiconductor Corporation  
 OneSpan Inc.  
 Photonics, Inc.  
 Plantronics, Inc.  
 Plexus Corp.  
 Powell Industries, Inc.  
 Power Integrations, Inc.  
 Preformed Line Products Company  
 Qorvo, Inc.  
 QUALCOMM Incorporated  
 Regal Beloit Corporation  
 RF Industries, Ltd.  
 Sanmina Corporation  
 Semtech Corporation  
 Servotronics, Inc.  
 SigmaTron International, Inc.  
 Silicon Laboratories Inc.  
 Skyworks Solutions, Inc.  
 Socket Mobile, Inc.  
 Stoneridge, Inc.

Synaptics Incorporated  
 Texas Instruments Incorporated  
 Thermon Group Holdings, Inc.  
 TTM Technologies, Inc.  
 Ubiquiti Inc.  
 Ultra Clean Holdings, Inc.  
 Ultralife Corporation  
 Universal Display Corporation  
 Universal Electronics Inc.  
 Vicor Corporation  
 VirTra, Inc.  
 Vishay Intertechnology, Inc.  
 Vishay Precision Group, Inc.  
 Whirlpool Corporation  
 Woodward, Inc.  
 Xilinx, Inc.

**SIC 362**

Allied Motion Technologies Inc.  
 Franklin Electric Co., Inc.  
 Generac Holdings Inc.  
 Regal Beloit Corporation  
 Servotronics, Inc.  
 Woodward, Inc.

**SIC 3621**

Allied Motion Technologies Inc.  
 Franklin Electric Co., Inc.  
 Generac Holdings Inc.  
 Regal Beloit Corporation  
 Servotronics, Inc.

**SIC 366**

ADTRAN, Inc.  
 Apple Inc.  
 BK Technologies Corporation  
 Ciena Corporation  
 CommScope Holding Company, Inc.  
 Comtech Telecommunications Corp.  
 EchoStar Corporation  
 Napco Security Technologies, Inc.  
 OneSpan Inc.  
 Plantronics, Inc.  
 Socket Mobile, Inc.  
 Ubiquiti Inc.

**SIC 3663**

Apple Inc.  
 BK Technologies Corporation  
 CommScope Holding Company, Inc.

Comtech Telecommunications Corp.  
 EchoStar Corporation  
 Socket Mobile, Inc.  
 Ubiquiti Inc.

**SIC 367**

Advanced Energy Industries, Inc.  
 Amkor Technology, Inc.  
 Amphenol Corporation  
 Analog Devices, Inc.  
 Applied Optoelectronics, Inc.  
 AVX Corporation  
 AXT, Inc.  
 Belden Inc.  
 Benchmark Electronics, Inc.  
 Broadcom Inc.  
 Cirrus Logic, Inc.  
 Clearfield, Inc.  
 CTS Corporation  
 Diodes Incorporated  
 Espey Mfg. & Electronics Corp.  
 First Solar, Inc.  
 IEC Electronics Corp.  
 Intel Corporation  
 IPG Photonics Corporation  
 Jabil Inc.  
 KEMET Corporation  
 Key Tronic Corporation  
 Kimball Electronics, Inc.  
 Maxim Integrated Products, Inc.  
 Mercury Systems, Inc.  
 Methode Electronics, Inc.  
 Microchip Technology Incorporated  
 Micron Technology, Inc.  
 Monolithic Power Systems, Inc.  
 NVE Corporation  
 NVIDIA Corporation  
 ON Semiconductor Corporation  
 Photonics, Inc.  
 Plexus Corp.  
 Power Integrations, Inc.  
 Qorvo, Inc.  
 RF Industries, Ltd.  
 Sanmina Corporation  
 Semtech Corporation  
 SigmaTron International, Inc.  
 Silicon Laboratories Inc.  
 Skyworks Solutions, Inc.  
 Stoneridge, Inc.  
 Synaptics Incorporated  
 Texas Instruments Incorporated  
 TTM Technologies, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Ultra Clean Holdings, Inc.  
 Universal Display Corporation  
 Vicor Corporation  
 Vishay Intertechnology, Inc.  
 Vishay Precision Group, Inc.  
 Xilinx, Inc.

Thermon Group Holdings, Inc.  
 Ultralife Corporation  
 VirTra, Inc.

**SIC 371**

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Allison Transmission Holdings, Inc.  
 American Axle & Manufacturing Holdings, Inc.  
 Autoliv, Inc.  
 BorgWarner Inc.  
 China Automotive Systems, Inc.  
 Commercial Vehicle Group, Inc.  
 Cooper-Standard Holdings Inc.  
 Dana Incorporated  
 Dorman Products, Inc.  
 Federal Signal Corporation  
 General Motors Company  
 Gentex Corporation  
 Gentherm Incorporated  
 LCI Industries  
 Meritor, Inc.  
 Miller Industries, Inc.  
 Modine Manufacturing Company  
 PACCAR Inc  
 SORL Auto Parts, Inc.  
 Spartan Motors, Inc.  
 Strattec Security Corporation  
 Visteon Corporation  
 Wabash National Corporation  
 WABCO Holdings Inc.  
 XPEL, Inc.

**SIC 3672**

---

Benchmark Electronics, Inc.  
 IEC Electronics Corp.  
 Jabil Inc.  
 Plexus Corp.  
 Sanmina Corporation  
 SigmaTron International, Inc.  
 TTM Technologies, Inc.

**SIC 37**

---

AeroVironment, Inc.  
 Allison Transmission Holdings, Inc.  
 American Axle & Manufacturing Holdings, Inc.  
 Autoliv, Inc.  
 BorgWarner Inc.  
 China Automotive Systems, Inc.  
 Commercial Vehicle Group, Inc.  
 Cooper-Standard Holdings Inc.  
 Dana Incorporated  
 Dorman Products, Inc.  
 Ducommun Incorporated  
 Federal Signal Corporation  
 Fox Factory Holding Corp.  
 General Motors Company  
 Gentex Corporation  
 Gentherm Incorporated  
 Harley-Davidson, Inc.  
 Huntington Ingalls Industries, Inc.  
 LCI Industries  
 Lockheed Martin Corporation  
 Malibu Boats, Inc.  
 Marine Products Corporation  
 Meritor, Inc.  
 Miller Industries, Inc.  
 Modine Manufacturing Company  
 PACCAR Inc  
 Polaris Inc.  
 SORL Auto Parts, Inc.  
 Spartan Motors, Inc.  
 Spirit AeroSystems Holdings, Inc.  
 Strattec Security Corporation  
 Textron Inc.  
 The Boeing Company  
 The Greenbrier Companies, Inc.  
 Thor Industries, Inc.  
 Visteon Corporation  
 Wabash National Corporation  
 WABCO Holdings Inc.  
 Wabtec Corporation  
 Winnebago Industries, Inc.  
 XPEL, Inc.

**SIC 3674**

---

Amkor Technology, Inc.  
 Analog Devices, Inc.  
 Applied Optoelectronics, Inc.  
 AXT, Inc.  
 Broadcom Inc.  
 Cirrus Logic, Inc.  
 Diodes Incorporated  
 First Solar, Inc.  
 Intel Corporation  
 IPG Photonics Corporation  
 Kimball Electronics, Inc.  
 Maxim Integrated Products, Inc.  
 Mercury Systems, Inc.  
 Microchip Technology Incorporated  
 Micron Technology, Inc.  
 Monolithic Power Systems, Inc.  
 NVE Corporation  
 NVIDIA Corporation  
 ON Semiconductor Corporation  
 Photonics, Inc.  
 Power Integrations, Inc.  
 Qorvo, Inc.  
 Semtech Corporation  
 Silicon Laboratories Inc.  
 Skyworks Solutions, Inc.  
 Synaptics Incorporated  
 Texas Instruments Incorporated  
 Ultra Clean Holdings, Inc.  
 Universal Display Corporation  
 Xilinx, Inc.

**SIC 3714**

---

Allison Transmission Holdings, Inc.  
 American Axle & Manufacturing Holdings, Inc.  
 Autoliv, Inc.  
 BorgWarner Inc.  
 China Automotive Systems, Inc.  
 Commercial Vehicle Group, Inc.  
 Cooper-Standard Holdings Inc.  
 Dana Incorporated  
 Dorman Products, Inc.  
 Gentex Corporation  
 Gentherm Incorporated  
 Meritor, Inc.  
 Modine Manufacturing Company  
 SORL Auto Parts, Inc.  
 Strattec Security Corporation  
 Visteon Corporation  
 WABCO Holdings Inc.  
 XPEL, Inc.

**SIC 369**

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EnerSys  
 Motorcar Parts of America, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

**SIC 38**

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Abiomed, Inc.  
 Align Technology, Inc.  
 Atrion Corporation  
 Badger Meter, Inc.  
 Becton, Dickinson and Company  
 Bio-Rad Laboratories, Inc.  
 Boston Scientific Corporation  
 Bruker Corporation  
 Cantel Medical Corp.  
 Coda Octopus Group, Inc.  
 Cognex Corporation  
 Coherent, Inc.  
 Cohu, Inc.  
 CONMED Corporation  
 CyberOptics Corporation  
 Danaher Corporation  
 Data I/O Corporation  
 Edwards Lifesciences Corporation  
 Electromed, Inc.  
 Electro-Sensors, Inc.  
 FARO Technologies, Inc.  
 FLIR Systems, Inc.  
 FormFactor, Inc.  
 Fossil Group, Inc.  
 Globus Medical, Inc.  
 Haemonetics Corporation  
 Hologic, Inc.  
 Hurco Companies, Inc.  
 ICU Medical, Inc.  
 II-VI Incorporated  
 Illumina, Inc.  
 Inogen, Inc.  
 Integer Holdings Corporation  
 Integra LifeSciences Holdings Corporation  
 inTEST Corporation  
 IntriCon Corporation  
 Intuitive Surgical, Inc.  
 IRadimed Corporation  
 Kewaunee Scientific Corporation  
 KLA Corporation  
 L3Harris Technologies, Inc.  
 Lakeland Industries, Inc.  
 LeMaitre Vascular, Inc.  
 LightPath Technologies, Inc.  
 Masimo Corporation  
 Merit Medical Systems, Inc.  
 Mesa Laboratories, Inc.  
 Mettler-Toledo International Inc.  
 Movado Group, Inc.  
 MSA Safety Incorporated  
 MTS Systems Corporation

Natus Medical Incorporated  
 NuVasive, Inc.  
 Onto Innovation Inc.  
 Orthofix Medical Inc.  
 OSI Systems, Inc.  
 PerkinElmer, Inc.  
 Pro-Dex, Inc.  
 ResMed Inc.  
 Roper Technologies, Inc.  
 Stryker Corporation  
 Teledyne Technologies Incorporated  
 Teleflex Incorporated  
 Teradyne, Inc.  
 The Cooper Companies, Inc.  
 Thermo Fisher Scientific Inc.  
 Trimble Inc.  
 Utah Medical Products, Inc.  
 Varian Medical Systems, Inc.  
 Waters Corporation  
 Zimmer Biomet Holdings, Inc.

**SIC 382**

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Badger Meter, Inc.  
 Bio-Rad Laboratories, Inc.  
 Bruker Corporation  
 Cognex Corporation  
 Coherent, Inc.  
 Cohu, Inc.  
 CyberOptics Corporation  
 Data I/O Corporation  
 Electro-Sensors, Inc.  
 FARO Technologies, Inc.  
 FormFactor, Inc.  
 Hurco Companies, Inc.  
 II-VI Incorporated  
 Illumina, Inc.  
 inTEST Corporation  
 Kewaunee Scientific Corporation  
 KLA Corporation  
 LightPath Technologies, Inc.  
 Mettler-Toledo International Inc.  
 MTS Systems Corporation  
 Onto Innovation Inc.  
 Teradyne, Inc.  
 Thermo Fisher Scientific Inc.  
 Trimble Inc.  
 Waters Corporation

**SIC 3825**

---

Cohu, Inc.  
 Data I/O Corporation  
 FormFactor, Inc.  
 inTEST Corporation

Teradyne, Inc.

**SIC 3826**

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Bio-Rad Laboratories, Inc.  
 Bruker Corporation  
 Coherent, Inc.  
 Illumina, Inc.  
 Mettler-Toledo International Inc.  
 Thermo Fisher Scientific Inc.  
 Waters Corporation

**SIC 384**

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Abiomed, Inc.  
 Align Technology, Inc.  
 Atrion Corporation  
 Becton, Dickinson and Company  
 Boston Scientific Corporation  
 Cantel Medical Corp.  
 CONMED Corporation  
 Edwards Lifesciences Corporation  
 Electromed, Inc.  
 Globus Medical, Inc.  
 Haemonetics Corporation  
 Hologic, Inc.  
 ICU Medical, Inc.  
 Inogen, Inc.  
 Integer Holdings Corporation  
 Integra LifeSciences Holdings Corporation  
 IntriCon Corporation  
 Intuitive Surgical, Inc.  
 IRadimed Corporation  
 Lakeland Industries, Inc.  
 LeMaitre Vascular, Inc.  
 Masimo Corporation  
 Merit Medical Systems, Inc.  
 MSA Safety Incorporated  
 Natus Medical Incorporated  
 NuVasive, Inc.  
 Orthofix Medical Inc.  
 OSI Systems, Inc.  
 Pro-Dex, Inc.  
 ResMed Inc.  
 Stryker Corporation  
 Teleflex Incorporated  
 Utah Medical Products, Inc.  
 Varian Medical Systems, Inc.  
 Zimmer Biomet Holdings, Inc.

**SIC 3841**

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Abiomed, Inc.  
 Atrion Corporation  
 Becton, Dickinson and Company

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Globus Medical, Inc.  
 Haemonetics Corporation  
 ICU Medical, Inc.  
 IRadimed Corporation  
 LeMaitre Vascular, Inc.  
 Merit Medical Systems, Inc.  
 NuVasive, Inc.  
 Pro-Dex, Inc.  
 Teleflex Incorporated

American Water Works  
 Company, Inc.  
 ArcBest Corporation  
 Artesian Resources  
 Corporation  
 AT&T Inc.  
 Atlas Air Worldwide  
 Holdings, Inc.  
 Atmos Energy Corporation  
 ATN International, Inc.

Hawaiian Holdings, Inc.  
 Heartland Express, Inc.  
 Hemisphere Media Group,  
 Inc.  
 Heritage-Crystal Clean, Inc  
 Holly Energy Partners, L.P.  
 Hub Group, Inc.  
 IDACORP, Inc.  
 IDT Corporation  
 Iridium Communications  
 Inc.

**SIC 3842**

Edwards Lifesciences  
 Corporation  
 Integra LifeSciences  
 Holdings Corporation  
 IntriCon Corporation  
 Lakeland Industries, Inc.  
 MSA Safety Incorporated  
 Zimmer Biomet Holdings,  
 Inc.

Avista Corporation  
 Beasley Broadcast Group,  
 Inc.  
 Black Hills Corporation  
 C.H. Robinson Worldwide,  
 Inc.  
 California Water Service  
 Group  
 CenterPoint Energy, Inc.  
 CenturyLink, Inc.  
 Charter Communications,  
 Inc.

J.B. Hunt Transport  
 Services, Inc.  
 JetBlue Airways  
 Corporation  
 Kansas City Southern  
 Kinder Morgan, Inc.  
 Knight-Swift  
 Transportation Holdings  
 Inc.

**SIC 3845**

CONMED Corporation  
 Electromed, Inc.  
 Inogen, Inc.  
 Integer Holdings  
 Corporation  
 Intuitive Surgical, Inc.  
 Masimo Corporation  
 Natus Medical  
 Incorporated  
 ResMed Inc.  
 Utah Medical Products, Inc.  
 Varian Medical Systems,  
 Inc.

Chesapeake Utilities  
 Corporation  
 CMS Energy Corporation  
 CNX Midstream Partners  
 LP  
 Cogent Communications  
 Holdings, Inc.  
 Consolidated Edison, Inc.  
 Covanta Holding  
 Corporation  
 Covenant Transportation  
 Group, Inc.

Landstar System, Inc.  
 Magellan Midstream  
 Partners, L.P.  
 Marten Transport, Ltd.  
 Matson, Inc.  
 MGE Energy, Inc.  
 Middlesex Water Company  
 MPLX LP  
 MSG Networks Inc.  
 New Jersey Resources  
 Corporation  
 Nexstar Media Group, Inc.  
 NextEra Energy Partners,  
 LP  
 NextEra Energy, Inc.  
 NiSource Inc.  
 Norfolk Southern  
 Corporation

**SIC 39**

Brady Corporation  
 Callaway Golf Company  
 Daktronics, Inc.  
 Escalade, Incorporated  
 Hasbro, Inc.  
 iRobot Corporation  
 Nautilus, Inc.

CSX Corporation  
 Delta Air Lines, Inc.  
 Discovery, Inc.  
 DISH Network Corporation  
 Dominion Energy, Inc.  
 DTE Energy Company  
 Duke Energy Corporation  
 Echo Global Logistics, Inc.  
 Edison International  
 El Paso Electric Company  
 Enable Midstream Partners,  
 LP

Northwest Natural Holding  
 Company  
 NorthWestern Corporation  
 OGE Energy Corp.  
 Old Dominion Freight Line,  
 Inc.  
 ONE Gas, Inc.  
 ONEOK, Inc.  
 Otelco Inc.

**SIC 4**

Air Transport Services  
 Group, Inc.  
 Alaska Air Group, Inc.  
 Alaska Communications  
 Systems Group, Inc.  
 Allegiant Travel Company  
 ALLETE, Inc.  
 Alliant Energy Corporation  
 AMC Networks Inc.  
 Ameren Corporation  
 American Airlines Group  
 Inc.  
 American Electric Power  
 Company, Inc.  
 American States Water  
 Company

Energy Transfer LP  
 Energy Corporation  
 EQM Midstream Partners,  
 LP  
 Era Group Inc.  
 Evergy, Inc.  
 Eversource Energy  
 Exelon Corporation  
 Expedia Group, Inc.  
 Expeditors International of  
 Washington, Inc.  
 FedEx Corporation  
 Forward Air Corporation  
 GATX Corporation  
 Gray Television, Inc.  
 Hawaiian Electric  
 Industries, Inc.

P.A.M. Transportation  
 Services, Inc.  
 Pattern Energy Group Inc.  
 PBF Logistics LP  
 Phillips 66 Partners LP  
 Pinnacle West Capital  
 Corporation  
 PNM Resources, Inc.  
 Portland General Electric  
 Company  
 PPL Corporation  
 Public Service Enterprise  
 Group Incorporated  
 Radiant Logistics, Inc.  
 Republic Services, Inc.  
 RGC Resources, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Saga Communications, Inc.  
 Saia, Inc.  
 Sempra Energy  
 Shell Midstream Partners,  
 L.P.  
 Shenandoah  
 Telecommunications  
 Company  
 Sinclair Broadcast Group,  
 Inc.  
 Sirius XM Holdings Inc.  
 SJW Group  
 SkyWest, Inc.  
 Southwest Airlines Co.  
 Spark Energy, Inc.  
 Spire Inc.  
 Spirit Airlines, Inc.  
 Spok Holdings, Inc.  
 Stericycle, Inc.  
 TEGNA Inc.  
 Telephone and Data  
 Systems, Inc.  
 The AES Corporation  
 The E.W. Scripps Company  
 The Liberty SiriusXM Group  
 The Providence Service  
 Corporation  
 The Southern Company  
 The Williams Companies,  
 Inc.  
 The York Water Company  
 T-Mobile US, Inc.  
 Townsquare Media, Inc.  
 UGI Corporation  
 Union Pacific Corporation  
 United Airlines Holdings,  
 Inc.  
 United Parcel Service, Inc.  
 United States Cellular  
 Corporation  
 Unitil Corporation  
 Universal Logistics  
 Holdings, Inc.  
 US Ecology, Inc.  
 USA Truck, Inc.  
 USD Partners LP  
 Verizon Communications  
 Inc.  
 ViacomCBS Inc.  
 Vonage Holdings Corp.  
 Waste Management, Inc.  
 WEC Energy Group, Inc.  
 Werner Enterprises, Inc.  
 Westcore Energy Ltd.  
 Western Midstream  
 Partners, LP  
 Xcel Energy Inc.  
 XPO Logistics, Inc.  
 Zayo Group Holdings, Inc.

C.H. Robinson Worldwide,  
 Inc.  
 Covenant Transportation  
 Group, Inc.  
 Forward Air Corporation  
 Heartland Express, Inc.  
 J.B. Hunt Transport  
 Services, Inc.  
 Knight-Swift  
 Transportation Holdings  
 Inc.  
 Landstar System, Inc.  
 Marten Transport, Ltd.  
 Old Dominion Freight Line,  
 Inc.  
 P.A.M. Transportation  
 Services, Inc.  
 Saia, Inc.  
 United Parcel Service, Inc.  
 Werner Enterprises, Inc.

American Airlines Group  
 Inc.  
 Delta Air Lines, Inc.  
 Hawaiian Holdings, Inc.  
 JetBlue Airways  
 Corporation  
 SkyWest, Inc.  
 Southwest Airlines Co.  
 Spirit Airlines, Inc.  
 United Airlines Holdings,  
 Inc.

**SIC 46**

Holly Energy Partners, L.P.  
 Magellan Midstream  
 Partners, L.P.  
 MPLX LP  
 PBF Logistics LP  
 Phillips 66 Partners LP  
 Shell Midstream Partners,  
 L.P.  
 USD Partners LP

**SIC 47**

Echo Global Logistics, Inc.  
 Expedia Group, Inc.  
 Expeditors International of  
 Washington, Inc.  
 GATX Corporation  
 Hub Group, Inc.  
 Radiant Logistics, Inc.  
 XPO Logistics, Inc.

**SIC 473**

Echo Global Logistics, Inc.  
 Expeditors International of  
 Washington, Inc.  
 Hub Group, Inc.  
 Radiant Logistics, Inc.  
 XPO Logistics, Inc.

**SIC 48**

Alaska Communications  
 Systems Group, Inc.  
 AMC Networks Inc.  
 AT&T Inc.  
 ATN International, Inc.  
 Beasley Broadcast Group,  
 Inc.  
 CenturyLink, Inc.  
 Charter Communications,  
 Inc.  
 Cogent Communications  
 Holdings, Inc.  
 Discovery, Inc.  
 DISH Network Corporation  
 Gray Television, Inc.  
 Hemisphere Media Group,  
 Inc.  
 IDT Corporation  
 Iridium Communications  
 Inc.  
 MSG Networks Inc.

**SIC 4213**

ArcBest Corporation  
 C.H. Robinson Worldwide,  
 Inc.  
 Covenant Transportation  
 Group, Inc.  
 Heartland Express, Inc.  
 J.B. Hunt Transport  
 Services, Inc.  
 Knight-Swift  
 Transportation Holdings  
 Inc.  
 Landstar System, Inc.  
 Marten Transport, Ltd.  
 Old Dominion Freight Line,  
 Inc.  
 P.A.M. Transportation  
 Services, Inc.  
 Saia, Inc.  
 Werner Enterprises, Inc.

**SIC 45**

Alaska Air Group, Inc.  
 Allegiant Travel Company  
 American Airlines Group  
 Inc.  
 Atlas Air Worldwide  
 Holdings, Inc.  
 Delta Air Lines, Inc.  
 Era Group Inc.  
 Hawaiian Holdings, Inc.  
 JetBlue Airways  
 Corporation  
 SkyWest, Inc.  
 Southwest Airlines Co.  
 Spirit Airlines, Inc.  
 United Airlines Holdings,  
 Inc.

**SIC 451**

Alaska Air Group, Inc.  
 Allegiant Travel Company

**SIC 42**

ArcBest Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Nexstar Media Group, Inc.  
 Otelco Inc.  
 Saga Communications, Inc.  
 Shenandoah  
 Telecommunications  
 Company  
 Sinclair Broadcast Group,  
 Inc.  
 Sirius XM Holdings Inc.  
 Spok Holdings, Inc.  
 TEGNA Inc.  
 Telephone and Data  
 Systems, Inc.  
 The E.W. Scripps Company  
 The Liberty SiriusXM Group  
 T-Mobile US, Inc.  
 Townsquare Media, Inc.  
 United States Cellular  
 Corporation  
 Verizon Communications  
 Inc.  
 ViacomCBS Inc.  
 Vonage Holdings Corp.  
 Zayo Group Holdings, Inc.

**SIC 481**

Alaska Communications  
 Systems Group, Inc.  
 AT&T Inc.  
 ATN International, Inc.  
 CenturyLink, Inc.  
 Cogent Communications  
 Holdings, Inc.  
 IDT Corporation  
 Otelco Inc.  
 Shenandoah  
 Telecommunications  
 Company  
 Spok Holdings, Inc.  
 Telephone and Data  
 Systems, Inc.  
 T-Mobile US, Inc.  
 United States Cellular  
 Corporation  
 Verizon Communications  
 Inc.

**SIC 4812**

AT&T Inc.  
 ATN International, Inc.  
 Spok Holdings, Inc.  
 T-Mobile US, Inc.  
 United States Cellular  
 Corporation

**SIC 4813**

Alaska Communications  
 Systems Group, Inc.  
 CenturyLink, Inc.  
 Cogent Communications  
 Holdings, Inc.  
 IDT Corporation

Otelco Inc.

**SIC 483**

AMC Networks Inc.  
 Beasley Broadcast Group,  
 Inc.  
 Gray Television, Inc.  
 Hemisphere Media Group,  
 Inc.  
 Nexstar Media Group, Inc.  
 Saga Communications, Inc.  
 Sinclair Broadcast Group,  
 Inc.  
 Sirius XM Holdings Inc.  
 TEGNA Inc.  
 The E.W. Scripps Company  
 The Liberty SiriusXM Group  
 Townsquare Media, Inc.

**SIC 4832**

Beasley Broadcast Group,  
 Inc.  
 Saga Communications, Inc.  
 Sirius XM Holdings Inc.  
 The Liberty SiriusXM Group  
 Townsquare Media, Inc.

**SIC 4833**

AMC Networks Inc.  
 Gray Television, Inc.  
 Hemisphere Media Group,  
 Inc.  
 Nexstar Media Group, Inc.  
 Sinclair Broadcast Group,  
 Inc.  
 TEGNA Inc.  
 The E.W. Scripps Company

**SIC 49**

ALLETE, Inc.  
 Alliant Energy Corporation  
 Ameren Corporation  
 American Electric Power  
 Company, Inc.  
 American States Water  
 Company  
 American Water Works  
 Company, Inc.  
 Artesian Resources  
 Corporation  
 Atmos Energy Corporation  
 Avista Corporation  
 Black Hills Corporation  
 California Water Service  
 Group  
 CenterPoint Energy, Inc.  
 Chesapeake Utilities  
 Corporation  
 CMS Energy Corporation  
 CNX Midstream Partners  
 LP  
 Consolidated Edison, Inc.  
 Covanta Holding  
 Corporation

Dominion Energy, Inc.  
 DTE Energy Company  
 Duke Energy Corporation  
 Edison International  
 El Paso Electric Company  
 Enable Midstream Partners,  
 LP  
 Entergy Corporation  
 EQM Midstream Partners,  
 LP  
 Evergy, Inc.  
 Eversource Energy  
 Exelon Corporation  
 Hawaiian Electric  
 Industries, Inc.  
 Heritage-Crystal Clean, Inc  
 IDACORP, Inc.  
 Kinder Morgan, Inc.  
 MGE Energy, Inc.  
 Middlesex Water Company  
 New Jersey Resources  
 Corporation  
 NextEra Energy Partners,  
 LP  
 NextEra Energy, Inc.  
 NiSource Inc.  
 Northwest Natural Holding  
 Company  
 NorthWestern Corporation  
 OGE Energy Corp.  
 ONE Gas, Inc.  
 ONEOK, Inc.  
 Pattern Energy Group Inc.  
 Pinnacle West Capital  
 Corporation  
 PNM Resources, Inc.  
 Portland General Electric  
 Company  
 PPL Corporation  
 Public Service Enterprise  
 Group Incorporated  
 Republic Services, Inc.  
 RGC Resources, Inc.  
 Sempra Energy  
 SJW Group  
 Spark Energy, Inc.  
 Spire Inc.  
 Stericycle, Inc.  
 The AES Corporation  
 The Southern Company  
 The Williams Companies,  
 Inc.  
 The York Water Company  
 UGI Corporation  
 Unitil Corporation  
 US Ecology, Inc.  
 Waste Management, Inc.  
 WEC Energy Group, Inc.  
 Westcore Energy Ltd.  
 Western Midstream  
 Partners, LP  
 Xcel Energy Inc.

**SIC 491**

Edison International  
 El Paso Electric Company  
 Entergy Corporation  
 Exelon Corporation  
 Hawaiian Electric  
 Industries, Inc.  
 IDACORP, Inc.  
 NextEra Energy Partners,  
 LP  
 NextEra Energy, Inc.  
 Pinnacle West Capital  
 Corporation  
 PNM Resources, Inc.  
 Portland General Electric  
 Company  
 PPL Corporation  
 The Southern Company

**SIC 492**

Atmos Energy Corporation  
 Chesapeake Utilities  
 Corporation  
 CNX Midstream Partners  
 LP  
 Enable Midstream Partners,  
 LP  
 EQM Midstream Partners,  
 LP  
 Kinder Morgan, Inc.  
 New Jersey Resources  
 Corporation  
 Northwest Natural Holding  
 Company  
 ONE Gas, Inc.  
 ONEOK, Inc.  
 RGC Resources, Inc.  
 Spire Inc.  
 The Williams Companies,  
 Inc.  
 Western Midstream  
 Partners, LP

**SIC 4922**

CNX Midstream Partners  
 LP  
 Enable Midstream Partners,  
 LP  
 EQM Midstream Partners,  
 LP  
 The Williams Companies,  
 Inc.  
 Western Midstream  
 Partners, LP

**SIC 4924**

Atmos Energy Corporation  
 New Jersey Resources  
 Corporation  
 Northwest Natural Holding  
 Company  
 ONE Gas, Inc.

RGC Resources, Inc.  
 Spire Inc.

**SIC 493**

ALLETE, Inc.  
 Alliant Energy Corporation  
 Ameren Corporation  
 Avista Corporation  
 DTE Energy Company  
 Duke Energy Corporation  
 Evergy, Inc.  
 Eversource Energy  
 NorthWestern Corporation  
 OGE Energy Corp.  
 Public Service Enterprise  
 Group Incorporated  
 Sempra Energy  
 Spark Energy, Inc.  
 UGI Corporation  
 WEC Energy Group, Inc.  
 Xcel Energy Inc.

**SIC 4931**

ALLETE, Inc.  
 Alliant Energy Corporation  
 Ameren Corporation  
 Avista Corporation  
 DTE Energy Company  
 Duke Energy Corporation  
 Evergy, Inc.  
 Eversource Energy  
 NorthWestern Corporation  
 OGE Energy Corp.  
 Public Service Enterprise  
 Group Incorporated  
 Sempra Energy  
 Spark Energy, Inc.  
 WEC Energy Group, Inc.  
 Xcel Energy Inc.

**SIC 494**

American States Water  
 Company  
 American Water Works  
 Company, Inc.  
 Artesian Resources  
 Corporation  
 California Water Service  
 Group  
 Middlesex Water Company  
 SJW Group  
 The York Water Company  
 Westcore Energy Ltd.

**SIC 495**

Covanta Holding  
 Corporation  
 Heritage-Crystal Clean, Inc  
 Republic Services, Inc.  
 Stericycle, Inc.  
 US Ecology, Inc.  
 Waste Management, Inc.

**SIC 5**

1-800-FLOWERS.COM, Inc.  
 AAR Corp.  
 Abercrombie & Fitch Co.  
 Adams Resources &  
 Energy, Inc.  
 Advance Auto Parts, Inc.  
 Amazon.com, Inc.  
 AMCON Distributing  
 Company  
 American Eagle Outfitters,  
 Inc.  
 AmerisourceBergen  
 Corporation  
 Anixter International Inc.  
 Applied Industrial  
 Technologies, Inc.  
 Aramark  
 Ark Restaurants Corp.  
 Arrow Electronics, Inc.  
 Asbury Automotive Group,  
 Inc.  
 AutoNation, Inc.  
 Avnet, Inc.  
 Beacon Roofing Supply,  
 Inc.  
 Best Buy Co., Inc.  
 Big 5 Sporting Goods  
 Corporation  
 Big Lots, Inc.  
 BJ's Restaurants, Inc.  
 Bloomin' Brands, Inc.  
 Boise Cascade Company  
 Boot Barn Holdings, Inc.  
 Burlington Stores, Inc.  
 Cardinal Health, Inc.  
 Carrols Restaurant Group,  
 Inc.  
 Casey's General Stores, Inc.  
 CDW Corporation  
 Central Garden & Pet  
 Company  
 Cheniere Energy Partners,  
 L.P.  
 Chico's FAS, Inc.  
 Chipotle Mexican Grill, Inc.  
 Chuy's Holdings, Inc.  
 Citi Trends, Inc.  
 Coffee Holding Co., Inc.  
 Conn's, Inc.  
 Copart, Inc.  
 Core-Mark Holding  
 Company, Inc.  
 Costco Wholesale  
 Corporation  
 Cracker Barrel Old Country  
 Store, Inc.  
 CrossAmerica Partners LP  
 CVS Health Corporation  
 Darden Restaurants, Inc.  
 Dave & Buster's  
 Entertainment, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Delek Logistics Partners, LP  
Denny's Corporation  
Designer Brands Inc.  
DICK'S Sporting Goods, Inc.  
Dillard's, Inc.  
Dollar General Corporation  
Dollar Tree, Inc.  
Dunkin' Brands Group, Inc.  
El Pollo Loco Holdings, Inc.  
ePlus inc.  
EVI Industries, Inc.  
Express, Inc.  
EZCORP, Inc.  
Fastenal Company  
Fiesta Restaurant Group, Inc.  
FirstCash, Inc.  
Five Below, Inc.  
Flanigan's Enterprises, Inc.  
Foot Locker, Inc.  
Francesca's Holdings Corporation  
GameStop Corp.  
Genesco Inc.  
Genuine Parts Company  
Global Partners LP  
Group 1 Automotive, Inc.  
Haverty Furniture Companies, Inc.  
HD Supply Holdings, Inc.  
Henry Schein, Inc.  
Hibbett Sports, Inc.  
Houston Wire & Cable Company  
Huttig Building Products, Inc.  
Ingles Markets, Incorporated  
Insight Enterprises, Inc.  
Jack in the Box Inc.  
Kirkland's, Inc.  
Kohl's Corporation  
L Brands, Inc.  
Lawson Products, Inc.  
Lithia Motors, Inc.  
LKQ Corporation  
Lowe's Companies, Inc.  
Macy's, Inc.  
MarineMax, Inc.  
McDonald's Corporation  
McKesson Corporation  
MSC Industrial Direct Co., Inc.  
Murphy USA Inc.  
Natural Grocers by Vitamin Cottage, Inc.  
Natural Health Trends Corp.  
Nordstrom, Inc.  
Office Depot, Inc.  
Olympic Steel, Inc.  
O'Reilly Automotive, Inc.

Papa John's International, Inc.  
Patterson Companies, Inc.  
PC Connection, Inc.  
Penske Automotive Group, Inc.  
PetMed Express, Inc.  
Plains All American Pipeline, L.P.  
Pool Corporation  
Potbelly Corporation  
Prestige Consumer Healthcare Inc.  
PriceSmart, Inc.  
Qurate Retail Inc  
RCI Hospitality Holdings, Inc.  
Red Robin Gourmet Burgers, Inc.  
Reliance Steel & Aluminum Co.  
RH  
Ross Stores, Inc.  
Rush Enterprises, Inc.  
Ruth's Hospitality Group, Inc.  
Ryerson Holding Corporation  
Sally Beauty Holdings, Inc.  
ScanSource, Inc.  
Schnitzer Steel Industries, Inc.  
Shoe Carnival, Inc.  
Sonic Automotive, Inc.  
SpartanNash Company  
Sportsman's Warehouse Holdings, Inc.  
Sprague Resources LP  
Sprouts Farmers Market, Inc.  
Star Group, L.P.  
Starbucks Corporation  
Suburban Propane Partners, L.P.  
Sunoco LP  
SYNNEX Corporation  
Sysco Corporation  
Systemax Inc.  
Tandy Leather Factory, Inc.  
Target Corporation  
Tech Data Corporation  
TESSCO Technologies Incorporated  
Texas Roadhouse, Inc.  
The Buckle, Inc.  
The Cato Corporation  
The Cheesecake Factory Incorporated  
The Chefs' Warehouse, Inc.  
The Children's Place, Inc.  
The Gap, Inc.  
The Habit Restaurants, Inc.  
The Home Depot, Inc.

The Kroger Co.  
The TJX Companies, Inc.  
The Wendy's Company  
Tiffany & Co.  
Tilly's, Inc.  
Tractor Supply Company  
TravelCenters of America Inc.  
Ulta Beauty, Inc.  
Universal Corporation  
Urban Outfitters, Inc.  
Village Super Market, Inc.  
W.W. Grainger, Inc.  
Walgreens Boots Alliance, Inc.  
Walmart Inc.  
Watsco, Inc.  
Wayside Technology Group, Inc.  
Weis Markets, Inc.  
WESCO International, Inc.  
Weyco Group, Inc.  
Williams-Sonoma, Inc.  
World Fuel Services Corporation  
YUM! Brands, Inc.  
Zumiez Inc.

**SIC 50**

AAR Corp.  
Anixter International Inc.  
Applied Industrial Technologies, Inc.  
Arrow Electronics, Inc.  
Avnet, Inc.  
Beacon Roofing Supply, Inc.  
Boise Cascade Company  
CDW Corporation  
Copart, Inc.  
ePlus inc.  
EVI Industries, Inc.  
Fastenal Company  
Genuine Parts Company  
HD Supply Holdings, Inc.  
Henry Schein, Inc.  
Houston Wire & Cable Company  
Huttig Building Products, Inc.  
Insight Enterprises, Inc.  
Lawson Products, Inc.  
LKQ Corporation  
MSC Industrial Direct Co., Inc.  
Olympic Steel, Inc.  
Patterson Companies, Inc.  
Pool Corporation  
Reliance Steel & Aluminum Co.  
Ryerson Holding Corporation  
ScanSource, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Schnitzer Steel Industries, Inc.  
 SYNEX Corporation  
 Systemax Inc.  
 Tech Data Corporation  
 TESSCO Technologies Incorporated  
 W.W. Grainger, Inc.  
 Watsco, Inc.  
 Wayside Technology Group, Inc.  
 WESCO International, Inc.

**SIC 504**

CDW Corporation  
 ePlus inc.  
 Henry Schein, Inc.  
 Insight Enterprises, Inc.  
 Patterson Companies, Inc.  
 SYNEX Corporation  
 Tech Data Corporation  
 Wayside Technology Group, Inc.

**SIC 5045**

CDW Corporation  
 ePlus inc.  
 Insight Enterprises, Inc.  
 SYNEX Corporation  
 Tech Data Corporation  
 Wayside Technology Group, Inc.

**SIC 506**

Anixter International Inc.  
 Avnet, Inc.  
 Houston Wire & Cable Company  
 TESSCO Technologies Incorporated  
 WESCO International, Inc.

**SIC 51**

Adams Resources & Energy, Inc.  
 AMCON Distributing Company  
 AmerisourceBergen Corporation  
 Cardinal Health, Inc.  
 Central Garden & Pet Company  
 Cheniere Energy Partners, L.P.  
 Coffee Holding Co., Inc.  
 Core-Mark Holding Company, Inc.  
 CrossAmerica Partners LP  
 Delek Logistics Partners, LP  
 Global Partners LP  
 McKesson Corporation

Natural Health Trends Corp.  
 Plains All American Pipeline, L.P.  
 Prestige Consumer Healthcare Inc.  
 SpartanNash Company  
 Sprague Resources LP  
 Sunoco LP  
 Sysco Corporation  
 The Chefs' Warehouse, Inc.  
 Universal Corporation  
 Weyco Group, Inc.  
 World Fuel Services Corporation

**SIC 512**

AmerisourceBergen Corporation  
 Cardinal Health, Inc.  
 McKesson Corporation  
 Natural Health Trends Corp.  
 Prestige Consumer Healthcare Inc.

**SIC 517**

Adams Resources & Energy, Inc.  
 Cheniere Energy Partners, L.P.  
 CrossAmerica Partners LP  
 Delek Logistics Partners, LP  
 Global Partners LP  
 Plains All American Pipeline, L.P.  
 Sprague Resources LP  
 Sunoco LP  
 World Fuel Services Corporation

**SIC 53**

Big Lots, Inc.  
 Costco Wholesale Corporation  
 Dillard's, Inc.  
 Dollar General Corporation  
 Dollar Tree, Inc.  
 Five Below, Inc.  
 Kohl's Corporation  
 Macy's, Inc.  
 PriceSmart, Inc.  
 Target Corporation  
 Walmart Inc.

**SIC 533**

Big Lots, Inc.  
 Dollar General Corporation  
 Dollar Tree, Inc.  
 Five Below, Inc.  
 PriceSmart, Inc.

Target Corporation  
 Walmart Inc.

**SIC 54**

Casey's General Stores, Inc.  
 Ingles Markets, Incorporated  
 Natural Grocers by Vitamin Cottage, Inc.  
 Sprouts Farmers Market, Inc.  
 The Kroger Co.  
 Village Super Market, Inc.  
 Weis Markets, Inc.

**SIC 541**

Casey's General Stores, Inc.  
 Ingles Markets, Incorporated  
 Sprouts Farmers Market, Inc.  
 The Kroger Co.  
 Village Super Market, Inc.  
 Weis Markets, Inc.

**SIC 5411**

Ingles Markets, Incorporated  
 Sprouts Farmers Market, Inc.  
 The Kroger Co.  
 Village Super Market, Inc.  
 Weis Markets, Inc.

**SIC 55**

Advance Auto Parts, Inc.  
 Asbury Automotive Group, Inc.  
 AutoNation, Inc.  
 Group 1 Automotive, Inc.  
 Lithia Motors, Inc.  
 MarineMax, Inc.  
 Murphy USA Inc.  
 O'Reilly Automotive, Inc.  
 Penske Automotive Group, Inc.  
 Rush Enterprises, Inc.  
 Sonic Automotive, Inc.  
 TravelCenters of America Inc.

**SIC 56**

Abercrombie & Fitch Co.  
 American Eagle Outfitters, Inc.  
 Boot Barn Holdings, Inc.  
 Burlington Stores, Inc.  
 Chico's FAS, Inc.  
 Citi Trends, Inc.  
 Designer Brands Inc.  
 Express, Inc.  
 Foot Locker, Inc.  
 Francesca's Holdings Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Genesco Inc.  
L Brands, Inc.  
Nordstrom, Inc.  
Ross Stores, Inc.  
Shoe Carnival, Inc.  
The Buckle, Inc.  
The Cato Corporation  
The Children's Place, Inc.  
The Gap, Inc.  
The TJX Companies, Inc.  
Tilly's, Inc.  
Urban Outfitters, Inc.  
Zumiez Inc.

**SIC 565**

Abercrombie & Fitch Co.  
Citi Trends, Inc.  
Nordstrom, Inc.  
Ross Stores, Inc.  
The Buckle, Inc.  
The Gap, Inc.  
The TJX Companies, Inc.  
Urban Outfitters, Inc.  
Zumiez Inc.

**SIC 57**

Best Buy Co., Inc.  
Conn's, Inc.  
GameStop Corp.  
Haverty Furniture  
Companies, Inc.  
RH

**SIC 58**

Aramark  
Ark Restaurants Corp.  
BJ's Restaurants, Inc.  
Bloomin' Brands, Inc.  
Carrols Restaurant Group,  
Inc.  
Chipotle Mexican Grill, Inc.  
Chuy's Holdings, Inc.  
Cracker Barrel Old Country  
Store, Inc.  
Darden Restaurants, Inc.  
Dave & Buster's  
Entertainment, Inc.  
Denny's Corporation  
Dunkin' Brands Group, Inc.  
El Pollo Loco Holdings, Inc.  
Fiesta Restaurant Group,  
Inc.  
Flanigan's Enterprises, Inc.  
Jack in the Box Inc.  
McDonald's Corporation  
Papa John's International,  
Inc.  
Potbelly Corporation  
RCI Hospitality Holdings,  
Inc.  
Red Robin Gourmet  
Burgers, Inc.

Ruth's Hospitality Group,  
Inc.  
Starbucks Corporation  
Texas Roadhouse, Inc.  
The Cheesecake Factory  
Incorporated  
The Habit Restaurants, Inc.  
The Wendy's Company  
YUM! Brands, Inc.

**SIC 5812**

Aramark  
Ark Restaurants Corp.  
BJ's Restaurants, Inc.  
Bloomin' Brands, Inc.  
Carrols Restaurant Group,  
Inc.  
Chipotle Mexican Grill, Inc.  
Chuy's Holdings, Inc.  
Cracker Barrel Old Country  
Store, Inc.  
Darden Restaurants, Inc.  
Denny's Corporation  
Dunkin' Brands Group, Inc.  
El Pollo Loco Holdings, Inc.  
Fiesta Restaurant Group,  
Inc.  
Flanigan's Enterprises, Inc.  
Jack in the Box Inc.  
McDonald's Corporation  
Papa John's International,  
Inc.  
Potbelly Corporation  
Red Robin Gourmet  
Burgers, Inc.  
Ruth's Hospitality Group,  
Inc.  
Starbucks Corporation  
Texas Roadhouse, Inc.  
The Cheesecake Factory  
Incorporated  
The Habit Restaurants, Inc.  
The Wendy's Company  
YUM! Brands, Inc.

**SIC 59**

1-800-FLOWERS.COM, Inc.  
Amazon.com, Inc.  
Big 5 Sporting Goods  
Corporation  
CVS Health Corporation  
DICK'S Sporting Goods, Inc.  
EZCORP, Inc.  
FirstCash, Inc.  
Hibbett Sports, Inc.  
Kirkland's, Inc.  
PC Connection, Inc.  
PetMed Express, Inc.  
Qurate Retail Inc  
Sportsman's Warehouse  
Holdings, Inc.  
Star Group, L.P.

Suburban Propane  
Partners, L.P.  
Tandy Leather Factory, Inc.  
Tiffany & Co.  
Ulta Beauty, Inc.  
Walgreens Boots Alliance,  
Inc.

**SIC 594**

Big 5 Sporting Goods  
Corporation  
DICK'S Sporting Goods, Inc.  
Hibbett Sports, Inc.  
Sportsman's Warehouse  
Holdings, Inc.  
Tiffany & Co.

**SIC 6**

1347 Property Insurance  
Holdings, Inc.  
1st Constitution Bancorp  
1st Source Corporation  
Acadia Realty Trust  
ACNB Corporation  
Affiliated Managers Group,  
Inc.  
Aflac Incorporated  
Agree Realty Corporation  
Alcentra Capital  
Corporation  
Alerus Financial  
Corporation  
Alexander's, Inc.  
Alexandria Real Estate  
Equities, Inc.  
Alleghany Corporation  
AllianceBernstein Holding  
L.P.  
Ally Financial Inc.  
America First Multifamily  
Investors, L.P.  
American Assets Trust, Inc.  
American Campus  
Communities, Inc.  
American Equity  
Investment Life Holding  
Company  
American Express  
Company  
American Financial Group,  
Inc.  
American International  
Group, Inc.  
American National  
Bankshares Inc.  
American National  
Insurance Company  
American Realty Investors,  
Inc.  
American River Bankshares  
American Tower  
Corporation (REIT)  
Ameriprise Financial, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Ameris Bancorp	BayCom Corp	Chemung Financial Corporation
Amerisafe, Inc.	BBX Capital Corporation	China HGS Real Estate Inc.
AmeriServ Financial, Inc.	BCB Bancorp, Inc.	Cigna Corporation
Ames National Corporation	Berkshire Hills Bancorp, Inc.	Cincinnati Financial Corporation
Annaly Capital Management, Inc.	BGC Partners, Inc.	CIT Group Inc.
Anthem, Inc.	BlackRock Capital Investment Corporation	Citigroup Inc.
Anworth Mortgage Asset Corporation	BlackRock TCP Capital Corp.	Citizens & Northern Corporation
Apartment Investment and Management Company	BlackRock, Inc.	Citizens Community Bancorp, Inc.
Apollo Commercial Real Estate Finance, Inc.	Blackstone Mortgage Trust, Inc.	Citizens Financial Group, Inc.
Apollo Global Management, Inc.	BOK Financial Corporation	Citizens Holding Company
Apollo Investment Corporation	Boston Private Financial Holdings, Inc.	City Holding Company
Arbor Realty Trust, Inc.	Boston Properties, Inc.	City Office REIT, Inc.
Ares Capital Corporation	BP Prudhoe Bay Royalty Trust	Civista Bancshares, Inc.
Ares Commercial Real Estate Corporation	Braemar Hotels & Resorts, Inc.	CME Group Inc.
Ares Management Corporation	Brandywine Realty Trust	CNA Financial Corporation
Armada Hoffler Properties, Inc.	Bridge Bancorp, Inc.	CNB Financial Corporation
Arrow Financial Corporation	BrightSphere Investment Group Inc.	CNO Financial Group, Inc.
Arthur J. Gallagher & Co.	Brixmor Property Group Inc.	Codorus Valley Bancorp, Inc.
Artisan Partners Asset Management Inc.	Broadway Financial Corporation	Cohen & Steers, Inc.
Associated Banc-Corp	Brookline Bancorp, Inc.	Colony Bankcorp, Inc.
Assurant, Inc.	Brown & Brown, Inc.	Columbia Banking System, Inc.
Asta Funding, Inc.	BRT Apartments Corp.	Columbia Property Trust, Inc.
Atlantic American Corporation	Bryn Mawr Bank Corporation	Comerica Incorporated
Atlantic Union Bankshares Corporation	C&F Financial Corporation	Commerce Bancshares, Inc.
Auburn National Bancorporation, Inc.	Cambridge Bancorp	Community Bank System, Inc.
AvalonBay Communities, Inc.	Camden National Corporation	Community Bankers Trust Corporation
Axos Financial, Inc.	Camden Property Trust	Community Trust Bancorp, Inc.
Banc of California, Inc.	Capital City Bank Group, Inc.	Community West Bancshares
BancFirst Corporation	Capital One Financial Corporation	ConnectOne Bancorp, Inc.
BancorpSouth Bank	Capital Southwest Corporation	Consolidated-Tomoka Land Co.
Bank First Corporation	Capitol Federal Financial, Inc.	CoreCivic, Inc.
Bank of America Corporation	CareTrust REIT, Inc.	CorEnergy Infrastructure Trust, Inc.
Bank of Commerce Holdings	Carolina Financial Corporation	CoreSite Realty Corporation
Bank of Hawaii Corporation	Carter Bank & Trust	Corporate Office Properties Trust
Bank of Marin Bancorp	Cathay General Bancorp	Cortland Bancorp
Bank of South Carolina Corporation	CB Financial Services, Inc.	CorVel Corporation
Bank of the James Financial Group, Inc.	CBRE Group, Inc.	Cousins Properties Incorporated
Bank OZK	Centene Corporation	Cowen Inc.
BankFinancial Corporation	CenterState Bank Corporation	Crawford & Company
BankUnited, Inc.	Central Federal Corporation	Credit Acceptance Corporation
Bankwell Financial Group, Inc.	Central Pacific Financial Corp.	Cross Timbers Royalty Trust
Banner Corporation	Central Valley Community Bancorp	Crown Castle International Corp. (REIT)
Bar Harbor Bankshares	Century Bancorp, Inc.	CubeSmart
	CEVA, Inc.	
	Chatham Lodging Trust	

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Cullen/Frost Bankers, Inc.	Fidus Investment Corporation	Fulton Financial Corporation
Customers Bancorp, Inc.	Fifth Third Bancorp	FVCBankcorp, Inc.
CVB Financial Corp.	Financial Institutions, Inc.	GAIN Capital Holdings, Inc.
Diamond Hill Investment Group, Inc.	First American Financial Corporation	GAMCO Investors, Inc.
DiamondRock Hospitality Company	First Bancorp	Gaming and Leisure Properties, Inc.
Digital Realty Trust, Inc.	First BanCorp.	Garrison Capital Inc.
Dime Community Bancshares, Inc.	First Bank	German American Bancorp, Inc.
Discover Financial Services	First Busey Corporation	Getty Realty Corp.
Diversified Healthcare Trust	First Business Financial Services, Inc.	Glacier Bancorp, Inc.
Dolby Laboratories, Inc.	First Capital, Inc.	Gladstone Capital Corporation
Donegal Group Inc.	First Citizens BancShares, Inc.	Gladstone Investment Corporation
Dorchester Minerals, L.P.	First Commonwealth Financial Corporation	Gladstone Land Corporation
Douglas Emmett, Inc.	First Community Bankshares, Inc.	Glen Burnie Bancorp
Duke Realty Corporation	First Community Corporation	Globe Life Inc.
E*TRADE Financial Corporation	First Defiance Financial Corp.	Golub Capital BDC, Inc.
Eagle Bancorp, Inc.	First Financial Bancorp.	Great Southern Bancorp, Inc.
East West Bancorp, Inc.	First Financial Bankshares, Inc.	Great Western Bancorp, Inc.
EastGroup Properties, Inc.	First Financial Corporation	Greene County Bancorp, Inc.
Eaton Vance Corp.	First Financial Northwest, Inc.	Greenhill & Co., Inc.
Elmira Savings Bank	First Foundation Inc.	Griffin Industrial Realty, Inc.
Emclaire Financial Corp	First Guaranty Bancshares, Inc.	Guaranty Federal Bancshares, Inc.
Empire State Realty Trust, Inc.	First Horizon National Corporation	Hallmark Financial Services, Inc.
Employers Holdings, Inc.	First Industrial Realty Trust, Inc.	Hancock Whitney Corporation
Encore Capital Group, Inc.	First Internet Bancorp	Hanmi Financial Corporation
Enova International, Inc.	First Interstate BancSystem, Inc.	Hannon Armstrong Sustainable Infrastructure Capital, Inc.
Enterprise Bancorp, Inc.	First Merchants Corporation	Harvest Capital Credit Corporation
Enterprise Financial Services Corp	First Mid Bancshares, Inc.	Hawthorn Bancshares, Inc.
EPR Properties	First Midwest Bancorp, Inc.	HCI Group, Inc.
Equinix, Inc. (REIT)	First National Corporation	Health Insurance Innovations, Inc.
Equity Commonwealth	First Republic Bank	Healthcare Realty Trust Incorporated
Equity LifeStyle Properties, Inc.	First Savings Financial Group, Inc.	Healthcare Trust of America, Inc.
Equity Residential	First United Corporation	Healthpeak Properties, Inc.
Erie Indemnity Company	First US Bancshares, Inc.	Heartland Financial USA, Inc.
ESSA Bancorp, Inc.	Flagstar Bancorp, Inc.	Hennessy Advisors, Inc.
Essex Property Trust, Inc.	Flushing Financial Corporation	Hercules Capital, Inc.
Euronet Worldwide, Inc.	FNCB Bancorp, Inc.	Heritage Commerce Corp
Evans Bancorp, Inc.	Franklin Financial Network, Inc.	Heritage Financial Corporation
Evercore Inc.	Franklin Financial Services Corporation	Heritage Insurance Holdings, Inc.
Extra Space Storage Inc.	Franklin Resources, Inc.	Hersha Hospitality Trust
F.N.B. Corporation	Franklin Street Properties Corp.	Highwoods Properties, Inc.
Farmers & Merchants Bancorp, Inc.	FS Bancorp, Inc.	Hilltop Holdings Inc.
Farmers National Banc Corp.	FS KKR Capital Corp.	
Farmland Partners Inc.	FSB Bancorp, Inc.	
Fauquier Bankshares, Inc.		
FBL Financial Group, Inc.		
Federal Agricultural Mortgage Corporation		
Federal Realty Investment Trust		
FedNat Holding Company		
Fidelity D & D Bancorp, Inc.		
Fidelity National Financial, Inc.		

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Hingham Institution for Savings	Kentucky First Federal Bancorp	MGIC Investment Corporation
HMN Financial, Inc.	KeyCorp	Mid Penn Bancorp, Inc.
HMS Holdings Corp.	Kilroy Realty Corporation	Mid-America Apartment Communities, Inc.
Home Bancorp, Inc.	Kimco Realty Corporation	Middlefield Banc Corp.
Home Bancshares, Inc. (Conway, AR)	Kingstone Companies, Inc.	MidWestOne Financial Group, Inc.
Home Federal Bancorp, Inc. of Louisiana	KKR & Co. Inc.	Moelis & Company
HomeStreet, Inc.	Ladder Capital Corp	Molina Healthcare, Inc.
HomeTrust Bancshares, Inc.	Lake Shore Bancorp, Inc.	Monmouth Real Estate Investment Corporation
Hope Bancorp, Inc.	Lakeland Bancorp, Inc.	Monroe Capital Corporation
Horace Mann Educators Corporation	Lakeland Financial Corporation	Morgan Stanley
Horizon Bancorp, Inc.	Lamar Advertising Company (REIT)	Mr. Cooper Group Inc.
Horizon Technology Finance Corporation	Landmark Bancorp, Inc.	MSCI Inc.
Host Hotels & Resorts, Inc.	Landmark Infrastructure Partners LP	MutualFirst Financial, Inc.
Howard Bancorp, Inc.	LCNB Corp.	MVB Financial Corp.
Hudson Pacific Properties, Inc.	Legg Mason, Inc.	National Bank Holdings Corporation
Humana Inc.	LendingTree, Inc.	National Bankshares, Inc.
Huntington Bancshares Incorporated	Lexington Realty Trust	National General Holdings Corp.
IBERIABANK Corporation	Liberty Property Trust	National Health Investors, Inc.
IF Bancorp, Inc.	Life Storage, Inc.	National Retail Properties, Inc.
Impac Mortgage Holdings, Inc.	Lincoln National Corporation	National Western Life Group, Inc.
Income Opportunity Realty Investors, Inc.	Lisi S.A.	NBT Bancorp Inc.
Independence Holding Company	Loews Corporation	Nelnet, Inc.
Independence Realty Trust, Inc.	LPL Financial Holdings Inc.	Network-1 Technologies, Inc.
Independent Bank Corp.	LTC Properties, Inc.	New Mountain Finance Corporation
Independent Bank Corporation	M&T Bank Corporation	New Residential Investment Corp.
Independent Bank Group, Inc.	Macatawa Bank Corporation	New York Community Bancorp, Inc.
Interactive Brokers Group, Inc.	Mack-Cali Realty Corporation	Newtek Business Services Corp.
Intercontinental Exchange, Inc.	Mackinac Financial Corporation	Nicolet Bankshares, Inc.
InterDigital, Inc.	Magyar Bancorp, Inc.	NMI Holdings, Inc.
International Bancshares Corporation	Main Street Capital Corporation	North European Oil Royalty Trust
Invesco Mortgage Capital Inc.	Malvern Bancorp, Inc.	Northeast Bank
Investar Holding Corporation	Manhattan Bridge Capital, Inc.	Northern Trust Corporation
Investcorp Credit Management BDC, Inc.	Manning & Napier, Inc.	Northfield Bancorp, Inc. (Staten Island, NY)
Investors Bancorp, Inc.	Marcus & Millichap, Inc.	Northrim BanCorp, Inc.
Investors Title Company	MarketAxess Holdings Inc.	Northwest Bancshares, Inc.
Iron Mountain Incorporated	Marlin Business Services Corp.	Norwood Financial Corp.
J.W. Mays, Inc.	Marsh & McLennan Companies, Inc.	Oak Valley Bancorp
Jones Lang LaSalle Incorporated	Mastercard Incorporated	Oaktree Strategic Income Corporation
JPMorgan Chase & Co.	Medallion Financial Corp.	OceanFirst Financial Corp.
Kearny Financial Corp.	Medical Properties Trust, Inc.	Oconee Federal Financial Corp.
Kemper Corporation	Mercantile Bank Corporation	OFB Bancorp
Kennedy-Wilson Holdings, Inc.	Mercury General Corporation	OFS Capital Corporation
	Meridian Bancorp, Inc.	Ohio Valley Banc Corp.
	Mesa Royalty Trust	Old National Bancorp
	Mesabi Trust	
	Meta Financial Group, Inc.	
	MetLife, Inc.	
	MFA Financial, Inc.	

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Old Point Financial Corporation	Premier Financial Bancorp, Inc.	Salisbury Bancorp, Inc.
Old Republic International Corporation	Primerica, Inc.	San Juan Basin Royalty Trust
Old Second Bancorp, Inc.	Principal Financial Group, Inc.	Sandy Spring Bancorp, Inc.
Omega Healthcare Investors, Inc.	ProAssurance Corporation	Santander Consumer USA Holdings Inc.
One Liberty Properties, Inc.	Prologis, Inc.	Saul Centers, Inc.
OneMain Holdings, Inc.	Prospect Capital Corporation	SB Financial Group, Inc.
Oppenheimer Holdings Inc.	Prosperity Bancshares, Inc.	SB One Bancorp
OptimumBank Holdings, Inc.	Protective Insurance Corp	Seacoast Banking Corporation of Florida
Opus Bank	Provident Financial Holdings, Inc.	Security National Financial Corporation
Orrstown Financial Services, Inc.	Provident Financial Services, Inc.	SEI Investments Company
Ottawa Bancorp, Inc.	Prudential Bancorp, Inc.	Select Bancorp, Inc.
Outfront Media Inc.	Prudential Financial, Inc.	Selective Insurance Group, Inc.
Oxford Lane Capital Corp.	PS Business Parks, Inc.	Service Properties Trust
Oxford Square Capital Corp.	Public Storage	ServisFirst Bancshares, Inc.
Pacific Mercantile Bancorp	Pzena Investment Management, Inc	Severn Bancorp, Inc.
Pacific Premier Bancorp, Inc.	QCR Holdings, Inc.	Shore Bancshares, Inc.
PacWest Bancorp	QTS Realty Trust, Inc.	Sierra Bancorp
Paramount Group, Inc.	Radian Group Inc.	Signature Bank
Park National Corporation	Rambus Inc.	Silvercrest Asset Management Group Inc.
Parke Bancorp, Inc.	Rand Capital Corporation	Simmons First National Corporation
Pathfinder Bancorp, Inc.	Raymond James Financial, Inc.	Simon Property Group, Inc.
Patriot National Bancorp, Inc.	Rayonier Inc.	SL Green Realty Corp.
PB Bancorp, Inc.	RE/MAX Holdings, Inc.	SLM Corporation
PCB Bancorp	Realogy Holdings Corp.	Solar Capital Ltd.
Peapack-Gladstone Financial Corporation	Realty Income Corporation	Solar Senior Capital Ltd.
Pebblebrook Hotel Trust	Regency Centers Corporation	Sound Financial Bancorp, Inc.
PennantPark Floating Rate Capital Ltd.	Regional Management Corp.	South State Corporation
PennantPark Investment Corporation	Regions Financial Corporation	Southern First Bancshares, Inc.
Penns Woods Bancorp, Inc.	Reinsurance Group of America, Incorporated	Southern Missouri Bancorp, Inc.
PennyMac Financial Services, Inc.	Renasant Corporation	Southern National Bancorp of Virginia, Inc.
PennyMac Mortgage Investment Trust	Republic Bancorp, Inc.	Southside Bancshares, Inc.
Peoples Bancorp Inc.	Republic First Bancorp, Inc.	Southwest Georgia Financial Corporation
Peoples Bancorp of North Carolina, Inc.	Retail Opportunity Investments Corp.	Spirit Realty Capital, Inc.
Peoples Financial Services Corp.	Retail Properties of America, Inc.	STAG Industrial, Inc.
People's United Financial, Inc.	Rexford Industrial Realty, Inc.	Starwood Property Trust, Inc.
Permian Basin Royalty Trust	Riverview Bancorp, Inc.	State Auto Financial Corporation
Physicians Realty Trust	Riverview Financial Corporation	State Street Corporation
Piedmont Office Realty Trust, Inc.	RLI Corp.	Stellus Capital Investment Corporation
Pinnacle Financial Partners, Inc.	RLJ Lodging Trust	Stewart Information Services Corporation
Piper Sandler Companies	Royal Gold, Inc.	Stifel Financial Corp.
Plumas Bancorp	RPT Realty	Stock Yards Bancorp, Inc.
Popular, Inc.	Ryman Hospitality Properties, Inc.	StoneCastle Financial Corp.
PRA Group, Inc.	S&T Bancorp, Inc.	STORE Capital Corporation
Preferred Bank	Sabine Royalty Trust	Summit Financial Group, Inc.
	Sabra Health Care REIT, Inc.	Summit Hotel Properties, Inc.
	Safety Insurance Group, Inc.	



Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Bank of Commerce Holdings	Colony Bankcorp, Inc.	First Guaranty Bancshares, Inc.
Bank of Hawaii Corporation	Columbia Banking System, Inc.	First Horizon National Corporation
Bank of Marin Bancorp	Comerica Incorporated	First Internet Bancorp
Bank of South Carolina Corporation	Commerce Bancshares, Inc.	First Interstate BancSystem, Inc.
Bank of the James Financial Group, Inc.	Community Bank System, Inc.	First Merchants Corporation
Bank OZK	Community Bankers Trust Corporation	First Mid Bancshares, Inc.
BankFinancial Corporation	Community Trust Bancorp, Inc.	First Midwest Bancorp, Inc.
BankUnited, Inc.	Community West Bancshares	First National Corporation
Bankwell Financial Group, Inc.	ConnectOne Bancorp, Inc.	First Republic Bank
Banner Corporation	Cortland Bancorp	First Savings Financial Group, Inc.
Bar Harbor Bankshares	Cullen/Frost Bankers, Inc.	First United Corporation
BayCom Corp	Customers Bancorp, Inc.	First US Bancshares, Inc.
BBX Capital Corporation	CVB Financial Corp.	Flagstar Bancorp, Inc.
BCB Bancorp, Inc.	Dime Community Bancshares, Inc.	Flushing Financial Corporation
Berkshire Hills Bancorp, Inc.	Eagle Bancorp, Inc.	FNCB Bancorp, Inc.
BOK Financial Corporation	East West Bancorp, Inc.	Franklin Financial Network, Inc.
Boston Private Financial Holdings, Inc.	Elmira Savings Bank	Franklin Financial Services Corporation
Bridge Bancorp, Inc.	Emclair Financial Corp	FS Bancorp, Inc.
Broadway Financial Corporation	Enterprise Bancorp, Inc.	FSB Bancorp, Inc.
Brookline Bancorp, Inc.	Enterprise Financial Services Corp	Fulton Financial Corporation
Bryn Mawr Bank Corporation	ESSA Bancorp, Inc.	FVCBancorp, Inc.
C&F Financial Corporation	Euronet Worldwide, Inc.	German American Bancorp, Inc.
Cambridge Bancorp	Evans Bancorp, Inc.	Glacier Bancorp, Inc.
Camden National Corporation	F.N.B. Corporation	Glen Burnie Bancorp
Capital City Bank Group, Inc.	Farmers & Merchants Bancorp, Inc.	Great Southern Bancorp, Inc.
Capitol Federal Financial, Inc.	Farmers National Banc Corp.	Great Western Bancorp, Inc.
Carolina Financial Corporation	Fauquier Bankshares, Inc.	Greene County Bancorp, Inc.
Carter Bank & Trust	Fidelity D & D Bancorp, Inc.	Guaranty Federal Bancshares, Inc.
Cathay General Bancorp	Fifth Third Bancorp	Hancock Whitney Corporation
CB Financial Services, Inc.	Financial Institutions, Inc.	Hanmi Financial Corporation
CenterState Bank Corporation	First Bancorp	Hawthorn Bancshares, Inc.
Central Federal Corporation	First BanCorp.	Heartland Financial USA, Inc.
Central Pacific Financial Corp.	First Bank	Heritage Commerce Corp
Central Valley Community Bancorp	First Busey Corporation	Heritage Financial Corporation
Century Bancorp, Inc.	First Business Financial Services, Inc.	Hingham Institution for Savings
Chemung Financial Corporation	First Capital, Inc.	HMN Financial, Inc.
CIT Group Inc.	First Citizens BancShares, Inc.	Home Bancorp, Inc.
Citizens & Northern Corporation	First Commonwealth Financial Corporation	Home Bancshares, Inc. (Conway, AR)
Citizens Community Bancorp, Inc.	First Community Bankshares, Inc.	Home Federal Bancorp, Inc. of Louisiana
Citizens Financial Group, Inc.	First Community Corporation	HomeStreet, Inc.
Citizens Holding Company	First Defiance Financial Corp.	HomeTrust Bancshares, Inc.
City Holding Company	First Financial Bancorp.	Hope Bancorp, Inc.
Civista Bancshares, Inc.	First Financial Bankshares, Inc.	Horizon Bancorp, Inc.
CNB Financial Corporation	First Financial Corporation	
Codorus Valley Bancorp, Inc.	First Financial Northwest, Inc.	
	First Foundation Inc.	

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Howard Bancorp, Inc.	Ohio Valley Banc Corp.	Severn Bancorp, Inc.
Huntington Bancshares Incorporated	Old National Bancorp	Shore Bancshares, Inc.
IBERIABANK Corporation	Old Point Financial Corporation	Sierra Bancorp
IF Bancorp, Inc.	Old Second Bancorp, Inc.	Signature Bank
Independent Bank Corp.	OptimumBank Holdings, Inc.	Simmons First National Corporation
Independent Bank Corporation	Opus Bank	Sound Financial Bancorp, Inc.
Independent Bank Group, Inc.	Orrstown Financial Services, Inc.	South State Corporation
International Bancshares Corporation	Ottawa Bancorp, Inc.	Southern First Bancshares, Inc.
Investar Holding Corporation	Pacific Mercantile Bancorp	Southern Missouri Bancorp, Inc.
Investors Bancorp, Inc.	Pacific Premier Bancorp, Inc.	Southern National Bancorp of Virginia, Inc.
JPMorgan Chase & Co.	PacWest Bancorp	Southside Bancshares, Inc.
Kearny Financial Corp.	Park National Corporation	Southwest Georgia Financial Corporation
Kentucky First Federal Bancorp	Parke Bancorp, Inc.	State Street Corporation
KeyCorp	Pathfinder Bancorp, Inc.	Stock Yards Bancorp, Inc.
Lake Shore Bancorp, Inc.	Patriot National Bancorp, Inc.	Summit Financial Group, Inc.
Lakeland Bancorp, Inc.	PB Bancorp, Inc.	Summit State Bank
Lakeland Financial Corporation	PCB Bancorp	SVB Financial Group
Landmark Bancorp, Inc.	Peapack-Gladstone Financial Corporation	Synovus Financial Corp.
LCNB Corp.	Penns Woods Bancorp, Inc.	TCF Financial Corporation
M&T Bank Corporation	Peoples Bancorp Inc.	Territorial Bancorp Inc.
Macatawa Bank Corporation	Peoples Bancorp of North Carolina, Inc.	Texas Capital Bancshares, Inc.
Mackinac Financial Corporation	Peoples Financial Services Corp.	TFS Financial Corporation
Magyar Bancorp, Inc.	People's United Financial, Inc.	The Bancorp, Inc.
Malvern Bancorp, Inc.	Pinnacle Financial Partners, Inc.	The Bank of New York Mellon Corporation
Mastercard Incorporated	Plumas Bancorp	The Community Financial Corporation
Mercantile Bank Corporation	Popular, Inc.	The First Bancorp, Inc.
Meridian Bancorp, Inc.	Preferred Bank	The First Bancshares, Inc.
Meta Financial Group, Inc.	Premier Financial Bancorp, Inc.	The First of Long Island Corporation
Mid Penn Bancorp, Inc.	Prosperity Bancshares, Inc.	The PNC Financial Services Group, Inc.
Middlefield Banc Corp.	Provident Financial Holdings, Inc.	The Western Union Company
MidWestOne Financial Group, Inc.	Provident Financial Services, Inc.	Timberland Bancorp, Inc.
MutualFirst Financial, Inc.	Prudential Bancorp, Inc.	Tompkins Financial Corporation
MVB Financial Corp.	QCR Holdings, Inc.	TowneBank
National Bank Holdings Corporation	Regions Financial Corporation	TriCo Bancshares
National Bankshares, Inc.	Renasant Corporation	TriState Capital Holdings, Inc.
NBT Bancorp Inc.	Republic Bancorp, Inc.	Triumph Bancorp, Inc.
New York Community Bancorp, Inc.	Republic First Bancorp, Inc.	Truist Financial Corporation
Nicolet Bankshares, Inc.	Riverview Bancorp, Inc.	TrustCo Bank Corp NY
Northeast Bank	Riverview Financial Corporation	Trustmark Corporation
Northern Trust Corporation	S&T Bancorp, Inc.	U.S. Bancorp
Northfield Bancorp, Inc. (Staten Island, NY)	Salisbury Bancorp, Inc.	UMB Financial Corporation
Northrim BanCorp, Inc.	Sandy Spring Bancorp, Inc.	Umpqua Holdings Corporation
Northwest Bancshares, Inc.	SB Financial Group, Inc.	Union Bankshares, Inc.
Norwood Financial Corp.	SB One Bancorp	United Bancorp, Inc.
Oak Valley Bancorp	Seacoast Banking Corporation of Florida	United Bancshares, Inc.
OceanFirst Financial Corp.	Select Bancorp, Inc.	United Bankshares, Inc.
Oconee Federal Financial Corp.	ServisFirst Bancshares, Inc.	
OFG Bancorp		

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

United Community Banks, Inc.  
 United Community Financial Corp.  
 United Security Bancshares  
 Unity Bancorp, Inc.  
 Univest Financial Corporation  
 Valley National Bancorp  
 Veritex Holdings, Inc.  
 Village Bank and Trust Financial Corp.  
 Visa Inc.  
 Washington Federal, Inc.  
 Washington Trust Bancorp, Inc.  
 Waterstone Financial, Inc.  
 Webster Financial Corporation  
 Wellesley Bancorp, Inc.  
 Wells Fargo & Company  
 WesBanco, Inc.  
 West Bancorporation, Inc.  
 Westamerica Bancorporation  
 Western Alliance Bancorporation  
 Western New England Bancorp, Inc.  
 Wintrust Financial Corporation  
 WSFS Financial Corporation  
 WVS Financial Corp.  
 Zions Bancorporation, National Association

Bank of Marin Bancorp  
 Bank of South Carolina Corporation  
 Bank of the James Financial Group, Inc.  
 Bank OZK  
 BankFinancial Corporation  
 BankUnited, Inc.  
 Bankwell Financial Group, Inc.  
 Banner Corporation  
 Bar Harbor Bankshares  
 BayCom Corp  
 BCB Bancorp, Inc.  
 Berkshire Hills Bancorp, Inc.  
 BOK Financial Corporation  
 Boston Private Financial Holdings, Inc.  
 Bridge Bancorp, Inc.  
 Bryn Mawr Bank Corporation  
 C&F Financial Corporation  
 Cambridge Bancorp  
 Camden National Corporation  
 Capital City Bank Group, Inc.  
 Carolina Financial Corporation  
 Carter Bank & Trust  
 Cathay General Bancorp  
 CB Financial Services, Inc.  
 CenterState Bank Corporation  
 Central Pacific Financial Corp.

Central Valley Community Bancorp  
 Century Bancorp, Inc.  
 Chemung Financial Corporation  
 CIT Group Inc.  
 Citizens & Northern Corporation  
 Citizens Community Bancorp, Inc.  
 Citizens Financial Group, Inc.  
 Citizens Holding Company  
 City Holding Company  
 Civista Bancshares, Inc.  
 CNB Financial Corporation  
 Codorus Valley Bancorp, Inc.  
 Colony Bankcorp, Inc.  
 Columbia Banking System, Inc.  
 Comerica Incorporated  
 Commerce Bancshares, Inc.  
 Community Bank System, Inc.  
 Community Bankers Trust Corporation

Community Trust Bancorp, Inc.  
 Community West Bancshares  
 ConnectOne Bancorp, Inc.  
 Cortland Bancorp  
 Cullen/Frost Bankers, Inc.  
 Customers Bancorp, Inc.  
 CVB Financial Corp.  
 Eagle Bancorp, Inc.  
 East West Bancorp, Inc.  
 Emclave Financial Corp  
 Enterprise Bancorp, Inc.  
 Enterprise Financial Services Corp  
 Evans Bancorp, Inc.  
 F.N.B. Corporation  
 Farmers National Banc Corp.  
 Fauquier Bankshares, Inc.  
 Fidelity D & D Bancorp, Inc.  
 Fifth Third Bancorp  
 Financial Institutions, Inc.  
 First Bancorp  
 First BanCorp.  
 First Bank  
 First Busey Corporation  
 First Business Financial Services, Inc.  
 First Capital, Inc.  
 First Citizens BancShares, Inc.  
 First Commonwealth Financial Corporation  
 First Community Bankshares, Inc.  
 First Community Corporation  
 First Financial Bancorp.  
 First Financial Bankshares, Inc.  
 First Financial Corporation  
 First Financial Northwest, Inc.  
 First Foundation Inc.  
 First Guaranty Bancshares, Inc.  
 First Horizon National Corporation  
 First Internet Bancorp  
 First Interstate BancSystem, Inc.  
 First Merchants Corporation  
 First Mid Bancshares, Inc.  
 First Midwest Bancorp, Inc.  
 First National Corporation  
 First Republic Bank  
 First Savings Financial Group, Inc.  
 First United Corporation  
 First US Bancshares, Inc.

**SIC 602**

1st Constitution Bancorp  
 1st Source Corporation  
 ACNB Corporation  
 Alerus Financial Corporation  
 American National Bankshares Inc.  
 American River Bankshares  
 Ameris Bancorp  
 AmeriServ Financial, Inc.  
 Ames National Corporation  
 Arrow Financial Corporation  
 Associated Banc-Corp  
 Atlantic Union Bankshares Corporation  
 Auburn National Bancorporation, Inc.  
 BancFirst Corporation  
 BancorpSouth Bank  
 Bank First Corporation  
 Bank of America Corporation  
 Bank of Commerce Holdings  
 Bank of Hawaii Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Flushing Financial Corporation	Middlefield Banc Corp.	Salisbury Bancorp, Inc.
FNCB Bancorp, Inc.	MidWestOne Financial Group, Inc.	Sandy Spring Bancorp, Inc.
Franklin Financial Network, Inc.	MutualFirst Financial, Inc.	SB Financial Group, Inc.
Franklin Financial Services Corporation	MVB Financial Corp.	SB One Bancorp
Fulton Financial Corporation	National Bank Holdings Corporation	Seacoast Banking Corporation of Florida
FVCBankcorp, Inc.	National Bankshares, Inc.	Select Bancorp, Inc.
German American Bancorp, Inc.	NBT Bancorp Inc.	ServisFirst Bancshares, Inc.
Glacier Bancorp, Inc.	Nicolet Bankshares, Inc.	Shore Bancshares, Inc.
Glen Burnie Bancorp	Northeast Bank	Sierra Bancorp
Great Southern Bancorp, Inc.	Northern Trust Corporation	Signature Bank
Great Western Bancorp, Inc.	Northrim BanCorp, Inc.	Simmons First National Corporation
Guaranty Federal Bancshares, Inc.	Norwood Financial Corp.	South State Corporation
Hancock Whitney Corporation	Oak Valley Bancorp	Southern First Bancshares, Inc.
Hanmi Financial Corporation	OFG Bancorp	Southern National Bancorp of Virginia, Inc.
Hawthorn Bancshares, Inc.	Ohio Valley Banc Corp.	Southside Bancshares, Inc.
Heartland Financial USA, Inc.	Old National Bancorp	Southwest Georgia Financial Corporation
Heritage Commerce Corp	Old Point Financial Corporation	State Street Corporation
Heritage Financial Corporation	Old Second Bancorp, Inc.	Stock Yards Bancorp, Inc.
Home Bancshares, Inc. (Conway, AR)	OptimumBank Holdings, Inc.	Summit Financial Group, Inc.
HomeStreet, Inc.	Opus Bank	Summit State Bank
HomeTrust Bancshares, Inc.	Orrstown Financial Services, Inc.	SVB Financial Group
Hope Bancorp, Inc.	Pacific Mercantile Bancorp	Synovus Financial Corp.
Horizon Bancorp, Inc.	Pacific Premier Bancorp, Inc.	TCF Financial Corporation
Howard Bancorp, Inc.	PacWest Bancorp	Texas Capital Bancshares, Inc.
Huntington Bancshares Incorporated	Park National Corporation	The Bancorp, Inc.
IBERIABANK Corporation	Parke Bancorp, Inc.	The Bank of New York Mellon Corporation
Independent Bank Corp.	Pathfinder Bancorp, Inc.	The Community Financial Corporation
Independent Bank Corporation	Patriot National Bancorp, Inc.	The First Bancorp, Inc.
Independent Bank Group, Inc.	PCB Bancorp	The First Bancshares, Inc.
International Bancshares Corporation	Peapack-Gladstone Financial Corporation	The First of Long Island Corporation
Investar Holding Corporation	Penns Woods Bancorp, Inc.	The PNC Financial Services Group, Inc.
JPMorgan Chase & Co.	Peoples Bancorp Inc.	Tompkins Financial Corporation
KeyCorp	Peoples Bancorp of North Carolina, Inc.	TowneBank
Lakeland Bancorp, Inc.	Peoples Financial Services Corp.	TriCo Bancshares
Lakeland Financial Corporation	People's United Financial, Inc.	TriState Capital Holdings, Inc.
Landmark Bancorp, Inc.	Pinnacle Financial Partners, Inc.	Truist Financial Corporation
LCNB Corp.	Plumas Bancorp	Trustmark Corporation
M&T Bank Corporation	Popular, Inc.	U.S. Bancorp
Macatawa Bank Corporation	Preferred Bank	UMB Financial Corporation
Mackinac Financial Corporation	Premier Financial Bancorp, Inc.	Umpqua Holdings Corporation
Malvern Bancorp, Inc.	Prosperity Bancshares, Inc.	Union Bankshares, Inc.
Mercantile Bank Corporation	QCR Holdings, Inc.	United Bancorp, Inc.
Mid Penn Bancorp, Inc.	Regions Financial Corporation	United Bancshares, Inc.
	Renasant Corporation	United Bankshares, Inc.
	Republic Bancorp, Inc.	United Community Banks, Inc.
	Republic First Bancorp, Inc.	United Security Bancshares
	Riverview Financial Corporation	Unity Bancorp, Inc.
	S&T Bancorp, Inc.	

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Univest Financial Corporation  
 Valley National Bancorp  
 Veritex Holdings, Inc.  
 Village Bank and Trust Financial Corp.  
 Washington Federal, Inc.  
 Washington Trust Bancorp, Inc.  
 Webster Financial Corporation  
 Wellesley Bancorp, Inc.  
 Wells Fargo & Company  
 WesBanco, Inc.  
 West Bancorporation, Inc.  
 Westamerica Bancorporation  
 Western Alliance Bancorporation  
 Wintrust Financial Corporation  
 Zions Bancorporation, National Association

New York Community Bancorp, Inc.  
 Northfield Bancorp, Inc. (Staten Island, NY)  
 Northwest Bancshares, Inc.  
 OceanFirst Financial Corp.  
 Oconee Federal Financial Corp.  
 Ottawa Bancorp, Inc.  
 PB Bancorp, Inc.  
 Provident Financial Holdings, Inc.  
 Provident Financial Services, Inc.  
 Prudential Bancorp, Inc.  
 Riverview Bancorp, Inc.  
 Severn Bancorp, Inc.  
 Sound Financial Bancorp, Inc.  
 Southern Missouri Bancorp, Inc.  
 Territorial Bancorp Inc.  
 TFS Financial Corporation  
 Timberland Bancorp, Inc.  
 Triumph Bancorp, Inc.  
 TrustCo Bank Corp NY  
 United Community Financial Corp.  
 Waterstone Financial, Inc.  
 Western New England Bancorp, Inc.  
 WSFS Financial Corporation  
 WVS Financial Corp.

Meta Financial Group, Inc.  
 Northfield Bancorp, Inc. (Staten Island, NY)  
 Northwest Bancshares, Inc.  
 OceanFirst Financial Corp.  
 Oconee Federal Financial Corp.  
 Ottawa Bancorp, Inc.  
 PB Bancorp, Inc.  
 Provident Financial Holdings, Inc.  
 Riverview Bancorp, Inc.  
 Severn Bancorp, Inc.  
 Sound Financial Bancorp, Inc.  
 Territorial Bancorp Inc.  
 TFS Financial Corporation  
 TrustCo Bank Corp NY  
 Waterstone Financial, Inc.  
 Western New England Bancorp, Inc.  
 WSFS Financial Corporation

**SIC 603**

Axos Financial, Inc.  
 Banc of California, Inc.  
 BBX Capital Corporation  
 Broadway Financial Corporation  
 Brookline Bancorp, Inc.  
 Capitol Federal Financial, Inc.  
 Central Federal Corporation  
 Dime Community Bancshares, Inc.  
 Elmira Savings Bank  
 ESSA Bancorp, Inc.  
 Farmers & Merchants Bancorp, Inc.  
 First Defiance Financial Corp.  
 Flagstar Bancorp, Inc.  
 FS Bancorp, Inc.  
 FSB Bancorp, Inc.  
 Greene County Bancorp, Inc.  
 Hingham Institution for Savings  
 HMN Financial, Inc.  
 Home Bancorp, Inc.  
 Home Federal Bancorp, Inc. of Louisiana  
 IF Bancorp, Inc.  
 Investors Bancorp, Inc.  
 Kearny Financial Corp.  
 Kentucky First Federal Bancorp  
 Lake Shore Bancorp, Inc.  
 Magyar Bancorp, Inc.  
 Meridian Bancorp, Inc.  
 Meta Financial Group, Inc.

**SIC 6035**

Axos Financial, Inc.  
 Banc of California, Inc.  
 BBX Capital Corporation  
 Broadway Financial Corporation  
 Brookline Bancorp, Inc.  
 Capitol Federal Financial, Inc.  
 Central Federal Corporation  
 Dime Community Bancshares, Inc.  
 Elmira Savings Bank  
 Farmers & Merchants Bancorp, Inc.  
 First Defiance Financial Corp.  
 Flagstar Bancorp, Inc.  
 Greene County Bancorp, Inc.  
 HMN Financial, Inc.  
 Home Bancorp, Inc.  
 Home Federal Bancorp, Inc. of Louisiana  
 IF Bancorp, Inc.  
 Kentucky First Federal Bancorp  
 Lake Shore Bancorp, Inc.

**SIC 6036**

ESSA Bancorp, Inc.  
 FS Bancorp, Inc.  
 FSB Bancorp, Inc.  
 Hingham Institution for Savings  
 Investors Bancorp, Inc.  
 Kearny Financial Corp.  
 Magyar Bancorp, Inc.  
 Meridian Bancorp, Inc.  
 New York Community Bancorp, Inc.  
 Provident Financial Services, Inc.  
 Prudential Bancorp, Inc.  
 Southern Missouri Bancorp, Inc.  
 Timberland Bancorp, Inc.  
 Triumph Bancorp, Inc.  
 United Community Financial Corp.  
 WVS Financial Corp.

**SIC 61**

Ally Financial Inc.  
 American Express Company  
 Asta Funding, Inc.  
 Credit Acceptance Corporation  
 Discover Financial Services  
 Encore Capital Group, Inc.  
 Enova International, Inc.  
 Federal Agricultural Mortgage Corporation  
 Impac Mortgage Holdings, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Income Opportunity Realty Investors, Inc.  
LendingTree, Inc.  
Marlin Business Services Corp.  
Medallion Financial Corp.  
Mr. Cooper Group Inc.  
Nelnet, Inc.  
OneMain Holdings, Inc.  
Oxford Lane Capital Corp.  
PennyMac Financial Services, Inc.  
PRA Group, Inc.  
Regional Management Corp.  
Santander Consumer USA Holdings Inc.  
SLM Corporation  
Synchrony Financial  
Walker & Dunlop, Inc.  
World Acceptance Corporation

**SIC 614**

Credit Acceptance Corporation  
Discover Financial Services  
Enova International, Inc.  
Nelnet, Inc.  
OneMain Holdings, Inc.  
Regional Management Corp.  
Santander Consumer USA Holdings Inc.  
SLM Corporation  
Synchrony Financial  
World Acceptance Corporation

**SIC 616**

Impac Mortgage Holdings, Inc.  
Income Opportunity Realty Investors, Inc.  
LendingTree, Inc.  
Mr. Cooper Group Inc.  
PennyMac Financial Services, Inc.  
Walker & Dunlop, Inc.

**SIC 6162**

Impac Mortgage Holdings, Inc.  
Income Opportunity Realty Investors, Inc.  
Mr. Cooper Group Inc.  
PennyMac Financial Services, Inc.  
Walker & Dunlop, Inc.

**SIC 62**

Affiliated Managers Group, Inc.

Ameriprise Financial, Inc.  
Apollo Global Management, Inc.  
Ares Management Corporation  
Artisan Partners Asset Management Inc.  
BlackRock, Inc.  
BrightSphere Investment Group Inc.  
CME Group Inc.  
Cohen & Steers, Inc.  
Cowen Inc.  
Diamond Hill Investment Group, Inc.  
E\*TRADE Financial Corporation  
Eaton Vance Corp.  
Evercore Inc.  
Franklin Resources, Inc.  
GAIN Capital Holdings, Inc.  
GAMCO Investors, Inc.  
Greenhill & Co., Inc.  
Hennessy Advisors, Inc.  
Interactive Brokers Group, Inc.  
Intercontinental Exchange, Inc.  
KKR & Co. Inc.  
Legg Mason, Inc.  
Lisi S.A.  
LPL Financial Holdings Inc.  
Manning & Napier, Inc.  
MarketAxess Holdings Inc.  
Moelis & Company  
Morgan Stanley  
MSCI Inc.  
Oppenheimer Holdings Inc.  
Piper Sandler Companies  
Principal Financial Group, Inc.  
Pzena Investment Management, Inc.  
Raymond James Financial, Inc.  
SEI Investments Company  
Silvercrest Asset Management Group Inc.  
Stifel Financial Corp.  
T. Rowe Price Group, Inc.  
TD Ameritrade Holding Corporation  
The Blackstone Group Inc.  
The Carlyle Group Inc.  
The Charles Schwab Corporation  
The Goldman Sachs Group, Inc.  
Virtus Investment Partners, Inc.  
Waddell & Reed Financial, Inc.

Westwood Holdings Group, Inc.  
WisdomTree Investments, Inc.

**SIC 621**

Ameriprise Financial, Inc.  
E\*TRADE Financial Corporation  
Interactive Brokers Group, Inc.  
LPL Financial Holdings Inc.  
Oppenheimer Holdings Inc.  
Piper Sandler Companies  
Raymond James Financial, Inc.  
Stifel Financial Corp.  
TD Ameritrade Holding Corporation  
The Goldman Sachs Group, Inc.

**SIC 628**

Affiliated Managers Group, Inc.  
Apollo Global Management, Inc.  
Ares Management Corporation  
Artisan Partners Asset Management Inc.  
BlackRock, Inc.  
BrightSphere Investment Group Inc.  
Cohen & Steers, Inc.  
Cowen Inc.  
Diamond Hill Investment Group, Inc.  
Eaton Vance Corp.  
Franklin Resources, Inc.  
GAMCO Investors, Inc.  
Greenhill & Co., Inc.  
Hennessy Advisors, Inc.  
KKR & Co. Inc.  
Legg Mason, Inc.  
Lisi S.A.  
Manning & Napier, Inc.  
Moelis & Company  
MSCI Inc.  
Principal Financial Group, Inc.  
Pzena Investment Management, Inc.  
SEI Investments Company  
Silvercrest Asset Management Group Inc.  
T. Rowe Price Group, Inc.  
The Blackstone Group Inc.  
The Carlyle Group Inc.  
The Charles Schwab Corporation

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Virtus Investment Partners, Inc.  
Waddell & Reed Financial, Inc.  
Westwood Holdings Group, Inc.  
WisdomTree Investments, Inc.

National General Holdings Corp.  
National Western Life Group, Inc.  
NMI Holdings, Inc.

Anthem, Inc.  
Centene Corporation  
Cigna Corporation  
CNO Financial Group, Inc.  
Humana Inc.

Old Republic International Corporation  
ProAssurance Corporation  
Protective Insurance Corp  
Prudential Financial, Inc.  
Radian Group Inc.

Independence Holding Company  
Molina Healthcare, Inc.  
Triple-S Management Corporation

Reinsurance Group of America, Incorporated  
RLI Corp.  
Safety Insurance Group, Inc.

UnitedHealth Group Incorporated  
Unum Group  
WellCare Health Plans, Inc.

Selective Insurance Group, Inc.

**SIC 6324**

Anthem, Inc.  
Centene Corporation  
Cigna Corporation  
Humana Inc.  
Molina Healthcare, Inc.  
Triple-S Management Corporation  
UnitedHealth Group Incorporated  
WellCare Health Plans, Inc.

State Auto Financial Corporation

Stewart Information Services Corporation  
The Allstate Corporation

The Hanover Insurance Group, Inc.

The Hartford Financial Services Group, Inc.

The National Security Group, Inc.

The Progressive Corporation  
The Travelers Companies, Inc.

Tiptree Inc.

Triple-S Management Corporation

United Fire Group, Inc.

United Insurance Holdings Corp.

UnitedHealth Group Incorporated

Universal Insurance Holdings, Inc.

Unum Group

Voya Financial, Inc.

W. R. Berkley Corporation  
WellCare Health Plans, Inc.

**SIC 631**

American Equity Investment Life Holding Company

FBL Financial Group, Inc.  
MetLife, Inc.

National Western Life Group, Inc.

Prudential Financial, Inc.

Reinsurance Group of America, Incorporated

**SIC 632**

Aflac Incorporated

**SIC 63**

1347 Property Insurance Holdings, Inc.  
Aflac Incorporated  
Alleghany Corporation  
American Equity Investment Life Holding Company  
American Financial Group, Inc.

American International Group, Inc.

American National Insurance Company

Amerisafe, Inc.

Anthem, Inc.

Assurant, Inc.

Atlantic American Corporation

Centene Corporation

Cigna Corporation

Cincinnati Financial Corporation

CNA Financial Corporation

CNO Financial Group, Inc.

Donegal Group Inc.

Employers Holdings, Inc.

FBL Financial Group, Inc.

FedNat Holding Company

Fidelity National Financial, Inc.

First American Financial Corporation

Globe Life Inc.

Hallmark Financial Services, Inc.

HCI Group, Inc.

Heritage Insurance Holdings, Inc.

Horace Mann Educators Corporation

Humana Inc.

Independence Holding Company

Investors Title Company

Kemper Corporation

Kingstone Companies, Inc.

Lincoln National Corporation

Mercury General Corporation

MetLife, Inc.

MGIC Investment Corporation

Molina Healthcare, Inc.

**SIC 633**

1347 Property Insurance Holdings, Inc.  
Alleghany Corporation  
American International Group, Inc.  
Amerisafe, Inc.

Cincinnati Financial Corporation  
CNA Financial Corporation  
Donegal Group Inc.

Employers Holdings, Inc.  
FedNat Holding Company

Hallmark Financial Services, Inc.

HCI Group, Inc.

Heritage Insurance Holdings, Inc.

Kemper Corporation

Kingstone Companies, Inc.  
Mercury General Corporation

National General Holdings Corp.

ProAssurance Corporation  
Protective Insurance Corp

RLI Corp.  
Safety Insurance Group, Inc.

Selective Insurance Group, Inc.

The Allstate Corporation

The Hanover Insurance Group, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

The Hartford Financial Services Group, Inc.  
 The National Security Group, Inc.  
 The Progressive Corporation  
 The Travelers Companies, Inc.  
 Tiptree Inc.  
 United Fire Group, Inc.  
 United Insurance Holdings Corp.  
 Universal Insurance Holdings, Inc.  
 W. R. Berkley Corporation

Landmark Infrastructure Partners LP  
 Transcontinental Realty Investors, Inc.

**SIC 653**

Jones Lang LaSalle Incorporated  
 Marcus & Millichap, Inc.  
 RE/MAX Holdings, Inc.  
 Realogy Holdings Corp.  
 Wyndham Destinations, Inc.

**SIC 67**

Acadia Realty Trust  
 Agree Realty Corporation  
 Alcentra Capital Corporation  
 Alexander's, Inc.  
 Alexandria Real Estate Equities, Inc.  
 AllianceBernstein Holding L.P.  
 America First Multifamily Investors, L.P.  
 American Assets Trust, Inc.  
 American Campus Communities, Inc.  
 American Tower Corporation (REIT)  
 Annaly Capital Management, Inc.  
 Anworth Mortgage Asset Corporation  
 Apartment Investment and Management Company  
 Apollo Commercial Real Estate Finance, Inc.  
 Apollo Investment Corporation  
 Ares Capital Corporation  
 Ares Commercial Real Estate Corporation  
 Armada Hoffer Properties, Inc.  
 AvalonBay Communities, Inc.  
 BlackRock Capital Investment Corporation  
 BlackRock TCP Capital Corp.  
 Blackstone Mortgage Trust, Inc.  
 Boston Properties, Inc.  
 BP Prudhoe Bay Royalty Trust  
 Braemar Hotels & Resorts, Inc.  
 Brandywine Realty Trust  
 Brixmor Property Group Inc.  
 BRT Apartments Corp.

Camden Property Trust  
 Capital Southwest Corporation  
 CareTrust REIT, Inc.  
 CEVA, Inc.  
 Chatham Lodging Trust  
 City Office REIT, Inc.  
 Columbia Property Trust, Inc.  
 CoreCivic, Inc.  
 CorEnergy Infrastructure Trust, Inc.  
 CoreSite Realty Corporation  
 Corporate Office Properties Trust  
 Cousins Properties Incorporated  
 Cross Timbers Royalty Trust  
 Crown Castle International Corp. (REIT)  
 CubeSmart  
 DiamondRock Hospitality Company  
 Digital Realty Trust, Inc.  
 Diversified Healthcare Trust  
 Dolby Laboratories, Inc.  
 Dorchester Minerals, L.P.  
 Douglas Emmett, Inc.  
 Duke Realty Corporation  
 EastGroup Properties, Inc.  
 Empire State Realty Trust, Inc.  
 EPR Properties  
 Equinix, Inc. (REIT)  
 Equity Commonwealth  
 Equity LifeStyle Properties, Inc.  
 Equity Residential  
 Essex Property Trust, Inc.  
 Extra Space Storage Inc.  
 Farmland Partners Inc.  
 Federal Realty Investment Trust  
 Fidus Investment Corporation  
 First Industrial Realty Trust, Inc.  
 Franklin Street Properties Corp.  
 FS KKR Capital Corp.  
 Gaming and Leisure Properties, Inc.  
 Garrison Capital Inc.  
 Getty Realty Corp.  
 Gladstone Capital Corporation  
 Gladstone Investment Corporation  
 Gladstone Land Corporation  
 Golub Capital BDC, Inc.

**SIC 64**

Arthur J. Gallagher & Co.  
 Brown & Brown, Inc.  
 CorVel Corporation  
 Crawford & Company  
 Erie Indemnity Company  
 Health Insurance Innovations, Inc.  
 HMS Holdings Corp.  
 Marsh & McLennan Companies, Inc.  
 Verisk Analytics, Inc.

**SIC 65**

American Realty Investors, Inc.  
 CBRE Group, Inc.  
 China HGS Real Estate Inc.  
 Consolidated-Tomoka Land Co.  
 Griffin Industrial Realty, Inc.  
 J.W. Mays, Inc.  
 Jones Lang LaSalle Incorporated  
 Kennedy-Wilson Holdings, Inc.  
 Landmark Infrastructure Partners LP  
 Marcus & Millichap, Inc.  
 RE/MAX Holdings, Inc.  
 Realogy Holdings Corp.  
 The Howard Hughes Corporation  
 Transcontinental Realty Investors, Inc.  
 Wyndham Destinations, Inc.

**SIC 651**

American Realty Investors, Inc.  
 Griffin Industrial Realty, Inc.  
 J.W. Mays, Inc.  
 Kennedy-Wilson Holdings, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Hannon Armstrong Sustainable Infrastructure Capital, Inc.	North European Oil Royalty Trust	Stellus Capital Investment Corporation
Harvest Capital Credit Corporation	Oaktree Strategic Income Corporation	StoneCastle Financial Corp.
Healthcare Realty Trust Incorporated	OFS Capital Corporation	STORE Capital Corporation
Healthcare Trust of America, Inc.	Omega Healthcare Investors, Inc.	Summit Hotel Properties, Inc.
Healthpeak Properties, Inc.	One Liberty Properties, Inc.	Sun Communities, Inc.
Hercules Capital, Inc.	Outfront Media Inc.	Sunstone Hotel Investors, Inc.
Hersha Hospitality Trust	Oxford Square Capital Corp.	Tanger Factory Outlet Centers, Inc.
Highwoods Properties, Inc.	Paramount Group, Inc.	Taubman Centers, Inc.
Horizon Technology Finance Corporation	Pebblebrook Hotel Trust	TC PipeLines, LP
Host Hotels & Resorts, Inc.	PennantPark Floating Rate Capital Ltd.	Terreno Realty Corporation
Hudson Pacific Properties, Inc.	PennantPark Investment Corporation	Texas Pacific Land Trust
Independence Realty Trust, Inc.	PennyMac Mortgage Investment Trust	The GEO Group, Inc.
InterDigital, Inc.	Permian Basin Royalty Trust	The Macerich Company
Invesco Mortgage Capital Inc.	Physicians Realty Trust	THL Credit, Inc.
Investcorp Credit Management BDC, Inc.	Piedmont Office Realty Trust, Inc.	TPG Specialty Lending, Inc.
Iron Mountain Incorporated	Prologis, Inc.	TriplePoint Venture Growth BDC Corp.
Kilroy Realty Corporation	Prospect Capital Corporation	UDR, Inc.
Kimco Realty Corporation	PS Business Parks, Inc.	Universal Health Realty Income Trust
Lamar Advertising Company (REIT)	Public Storage	Urstadt Biddle Properties Inc.
Lexington Realty Trust	QTS Realty Trust, Inc.	Ventas, Inc.
Liberty Property Trust	Rambus Inc.	Viper Energy Partners LP
Life Storage, Inc.	Rand Capital Corporation	Vornado Realty Trust
LTC Properties, Inc.	Rayonier Inc.	W. P. Carey Inc.
Mack-Cali Realty Corporation	Realty Income Corporation	Washington Real Estate Investment Trust
Main Street Capital Corporation	Regency Centers Corporation	Weingarten Realty Investors
Manhattan Bridge Capital, Inc.	Retail Opportunity Investments Corp.	Welltower Inc.
Medical Properties Trust, Inc.	Retail Properties of America, Inc.	WhiteHorse Finance, Inc.
Mesa Royalty Trust	Rexford Industrial Realty, Inc.	Whitestone REIT
Mesabi Trust	RLJ Lodging Trust	Winmark Corporation
MFA Financial, Inc.	Royal Gold, Inc.	
Mid-America Apartment Communities, Inc.	RPT Realty	<b>SIC 6794</b>
Monmouth Real Estate Investment Corporation	Ryman Hospitality Properties, Inc.	CEVA, Inc.
Monroe Capital Corporation	Sabine Royalty Trust	Dolby Laboratories, Inc.
National Health Investors, Inc.	Sabra Health Care REIT, Inc.	InterDigital, Inc.
National Retail Properties, Inc.	San Juan Basin Royalty Trust	Network-1 Technologies, Inc.
Network-1 Technologies, Inc.	Saul Centers, Inc.	Rambus Inc.
New Mountain Finance Corporation	Service Properties Trust	Winmark Corporation
New Residential Investment Corp.	Simon Property Group, Inc.	
Newtek Business Services Corp.	SL Green Realty Corp.	<b>SIC 6798</b>
	Solar Capital Ltd.	Acadia Realty Trust
	Solar Senior Capital Ltd.	Agree Realty Corporation
	Spirit Realty Capital, Inc.	Alexander's, Inc.
	STAG Industrial, Inc.	Alexandria Real Estate Equities, Inc.
	Starwood Property Trust, Inc.	American Assets Trust, Inc.
		American Campus Communities, Inc.
		American Tower Corporation (REIT)
		Annaly Capital Management, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Anworth Mortgage Asset Corporation	Franklin Street Properties Corp.	Public Storage
Apartment Investment and Management Company	Gaming and Leisure Properties, Inc.	QTS Realty Trust, Inc.
Apollo Commercial Real Estate Finance, Inc.	Getty Realty Corp.	Rayonier Inc.
Ares Commercial Real Estate Corporation	Gladstone Land Corporation	Realty Income Corporation
Armada Hoffer Properties, Inc.	Hannon Armstrong Sustainable Infrastructure Capital, Inc.	Regency Centers Corporation
AvalonBay Communities, Inc.	Healthcare Realty Trust Incorporated	Retail Opportunity Investments Corp.
Blackstone Mortgage Trust, Inc.	Healthcare Trust of America, Inc.	Retail Properties of America, Inc.
Boston Properties, Inc.	Healthpeak Properties, Inc.	Rexford Industrial Realty, Inc.
Braemar Hotels & Resorts, Inc.	Hersha Hospitality Trust	RLJ Lodging Trust
Brandywine Realty Trust	Highwoods Properties, Inc.	RPT Realty
Brixmor Property Group Inc.	Host Hotels & Resorts, Inc.	Ryman Hospitality Properties, Inc.
BRT Apartments Corp.	Hudson Pacific Properties, Inc.	Sabra Health Care REIT, Inc.
Camden Property Trust	Independence Realty Trust, Inc.	Saul Centers, Inc.
CareTrust REIT, Inc.	Invesco Mortgage Capital Inc.	Service Properties Trust
Chatham Lodging Trust	Iron Mountain Incorporated	Simon Property Group, Inc.
City Office REIT, Inc.	Kilroy Realty Corporation	SL Green Realty Corp.
Columbia Property Trust, Inc.	Kimco Realty Corporation	Spirit Realty Capital, Inc.
CoreCivic, Inc.	Lamar Advertising Company (REIT)	STAG Industrial, Inc.
CorEnergy Infrastructure Trust, Inc.	Lexington Realty Trust	Starwood Property Trust, Inc.
CoreSite Realty Corporation	Liberty Property Trust	STORE Capital Corporation
Corporate Office Properties Trust	Life Storage, Inc.	Summit Hotel Properties, Inc.
Cousins Properties Incorporated	LTC Properties, Inc.	Sun Communities, Inc.
Crown Castle International Corp. (REIT)	Mack-Cali Realty Corporation	Sunstone Hotel Investors, Inc.
CubeSmart	Manhattan Bridge Capital, Inc.	Tanger Factory Outlet Centers, Inc.
DiamondRock Hospitality Company	Medical Properties Trust, Inc.	Taubman Centers, Inc.
Digital Realty Trust, Inc.	MFA Financial, Inc.	Terreno Realty Corporation
Diversified Healthcare Trust	Mid-America Apartment Communities, Inc.	The GEO Group, Inc.
Douglas Emmett, Inc.	Monmouth Real Estate Investment Corporation	The Macerich Company
Duke Realty Corporation	National Health Investors, Inc.	UDR, Inc.
EastGroup Properties, Inc.	National Retail Properties, Inc.	Universal Health Realty Income Trust
Empire State Realty Trust, Inc.	New Residential Investment Corp.	Urstadt Biddle Properties Inc.
EPR Properties	Omega Healthcare Investors, Inc.	Ventas, Inc.
Equinix, Inc. (REIT)	One Liberty Properties, Inc.	Vornado Realty Trust
Equity Commonwealth	Outfront Media Inc.	W. P. Carey Inc.
Equity LifeStyle Properties, Inc.	Paramount Group, Inc.	Washington Real Estate Investment Trust
Equity Residential	Pebblebrook Hotel Trust	Weingarten Realty Investors
Essex Property Trust, Inc.	PennyMac Mortgage Investment Trust	Welltower Inc.
Extra Space Storage Inc.	Physicians Realty Trust	Whitestone REIT
Farmland Partners Inc.	Piedmont Office Realty Trust, Inc.	
Federal Realty Investment Trust	Prologis, Inc.	
First Industrial Realty Trust, Inc.	PS Business Parks, Inc.	
		<b>SIC 7</b>
		ABM Industries Incorporated
		ACI Worldwide, Inc.
		Activision Blizzard, Inc.
		Adobe Inc.
		Air Lease Corporation
		Akamai Technologies, Inc.
		Alphabet Inc.
		AMERCO
		American Software, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

AMN Healthcare Services, Inc.	FactSet Research Systems Inc.	National Research Corporation
ANSYS, Inc.	Fair Isaac Corporation	Natural Gas Services Group, Inc.
ARC Document Solutions, Inc.	Fidelity National Information Services, Inc.	Net 1 UEPS Technologies, Inc.
ASGN Incorporated	Finjan Holdings, Inc.	Netflix, Inc.
Aspen Technology, Inc.	Fiserv, Inc.	NetScout Systems, Inc.
Aware, Inc.	FleetCor Technologies, Inc.	NetSol Technologies, Inc.
Barrett Business Services, Inc.	Franchise Group, Inc.	NextGen Healthcare, Inc.
BG Staffing, Inc.	GlobalSCAPE, Inc.	NIC Inc.
Blackbaud, Inc.	Green Dot Corporation	NortonLifeLock Inc.
Booking Holdings Inc.	Grubhub Inc.	Omnicell, Inc.
Booz Allen Hamilton Holding Corporation	Guidewire Software, Inc.	Omnicom Group Inc.
Bowl America Incorporated	H&R Block, Inc.	Oracle Corporation
Boyd Gaming Corporation	HealthEquity, Inc.	Park City Group, Inc.
Broadridge Financial Solutions, Inc.	HealthStream, Inc.	Paycom Software, Inc.
CACI International Inc	Heidrick & Struggles International, Inc.	Paylocity Holding Corporation
Cadence Design Systems, Inc.	Hilton Worldwide Holdings Inc.	Pegasystems Inc.
Canterbury Park Holding Corporation	Hyatt Hotels Corporation	Penn National Gaming, Inc.
Carriage Services, Inc.	IAC/InterActiveCorp	Perficient, Inc.
Cass Information Systems, Inc.	Information Services Group, Inc.	Progress Software Corporation
CDK Global, Inc.	Insignia Systems, Inc.	PTC Inc.
Cedar Fair, L.P.	Insperity, Inc.	QAD Inc.
Century Casinos, Inc.	Intelligent Systems Corporation	Qualys, Inc.
Cerner Corporation	International Business Machines Corporation	RCM Technologies, Inc.
Churchill Downs Incorporated	Intuit Inc.	Reading International, Inc.
Cinemark Holdings, Inc.	Issuer Direct Corporation	RealPage, Inc.
Cintas Corporation	j2 Global, Inc.	Robert Half International Inc.
Citrix Systems, Inc.	Jack Henry & Associates, Inc.	Rollins, Inc.
Cognizant Technology Solutions Corporation	KAR Auction Services, Inc.	S&P Global Inc.
Collectors Universe, Inc.	Kelly Services, Inc.	Sabre Corporation
CoreLogic, Inc.	Kforce Inc.	salesforce.com, inc.
CoStar Group, Inc.	Korn Ferry	Science Applications International Corporation
Cross Country Healthcare, Inc.	Las Vegas Sands Corp.	ServiceMaster Global Holdings, Inc.
CSG Systems International, Inc.	LogMeIn, Inc.	Shutterstock, Inc.
CSP Inc.	Manhattan Associates, Inc.	SilverSun Technologies, Inc.
CynergisTek, Inc.	ManpowerGroup Inc.	Six Flags Entertainment Corporation
DHI Group, Inc.	ManTech International Corporation	SP Plus Corporation
Dover Motorsports, Inc.	Marriott International, Inc.	SPAR Group, Inc.
DXC Technology Company	Marriott Vacations Worldwide Corporation	SPS Commerce, Inc.
eBay Inc.	Mastech Digital, Inc.	SS&C Technologies Holdings, Inc.
Ebix, Inc.	McGrath RentCorp	Stamps.com Inc.
Eldorado Resorts, Inc.	MercadoLibre, Inc.	Sykes Enterprises, Incorporated
Electronic Arts Inc.	MGM Resorts International	Synopsys, Inc.
EPAM Systems, Inc.	Microsoft Corporation	Take-Two Interactive Software, Inc.
Equifax Inc.	MicroStrategy Incorporated	TechTarget, Inc.
EVERTEC, Inc.	Mobile Mini, Inc.	Teradata Corporation
Evolving Systems, Inc.	Monarch Casino & Resort, Inc.	The Interpublic Group of Companies, Inc.
Extended Stay America, Inc.	Monro, Inc.	Travelzoo
F5 Networks, Inc.	Moody's Corporation	TriNet Group, Inc.
Facebook, Inc.	Morningstar, Inc.	TripAdvisor, Inc.
	National Instruments Corporation	

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

TrueBlue, Inc.  
 TSR, Inc.  
 TTEC Holdings, Inc.  
 Tyler Technologies, Inc.  
 United Rentals, Inc.  
 Vail Resorts, Inc.  
 Veeva Systems Inc.  
 Verint Systems Inc.  
 Viad Corp  
 Virtusa Corporation  
 WEX Inc.  
 Wilhelmina International,  
 Inc.  
 Willis Lease Finance  
 Corporation  
 Wynn Resorts, Limited  
 Yelp Inc.  
 Zix Corporation

Citrix Systems, Inc.  
 Cognizant Technology  
 Solutions Corporation  
 Collectors Universe, Inc.  
 CoreLogic, Inc.  
 CoStar Group, Inc.  
 Cross Country Healthcare,  
 Inc.  
 CSG Systems International,  
 Inc.  
 CSP Inc.  
 CynergisTek, Inc.  
 DHI Group, Inc.  
 DXC Technology Company  
 eBay Inc.  
 Ebix, Inc.  
 Electronic Arts Inc.  
 EPAM Systems, Inc.  
 Equifax Inc.  
 EVERTEC, Inc.  
 Evolving Systems, Inc.  
 F5 Networks, Inc.  
 Facebook, Inc.  
 FactSet Research Systems  
 Inc.  
 Fair Isaac Corporation  
 Fidelity National  
 Information Services, Inc.  
 Finjan Holdings, Inc.  
 Fiserv, Inc.  
 FleetCor Technologies, Inc.  
 GlobalSCAPE, Inc.  
 Green Dot Corporation  
 Grubhub Inc.  
 Guidewire Software, Inc.  
 HealthEquity, Inc.  
 HealthStream, Inc.  
 Heidrick & Struggles  
 International, Inc.  
 IAC/InterActiveCorp  
 Information Services  
 Group, Inc.  
 Insignia Systems, Inc.  
 Insperity, Inc.  
 Intelligent Systems  
 Corporation  
 International Business  
 Machines Corporation  
 Intuit Inc.  
 Issuer Direct Corporation  
 j2 Global, Inc.  
 Jack Henry & Associates,  
 Inc.  
 KAR Auction Services, Inc.  
 Kelly Services, Inc.  
 Kforce Inc.  
 Korn Ferry  
 LogMeIn, Inc.  
 Manhattan Associates, Inc.  
 ManpowerGroup Inc.  
 ManTech International  
 Corporation

Mastech Digital, Inc.  
 McGrath RentCorp  
 MercadoLibre, Inc.  
 Microsoft Corporation  
 MicroStrategy Incorporated  
 Mobile Mini, Inc.  
 Moody's Corporation  
 Morningstar, Inc.  
 National Instruments  
 Corporation  
 National Research  
 Corporation  
 Net 1 UEPS Technologies,  
 Inc.  
 NetScout Systems, Inc.  
 NetSol Technologies, Inc.  
 NextGen Healthcare, Inc.  
 NIC Inc.  
 NortonLifeLock Inc.  
 Omnicell, Inc.  
 Omnicom Group Inc.  
 Oracle Corporation  
 Park City Group, Inc.  
 Paycom Software, Inc.  
 Paylocity Holding  
 Corporation  
 Pegasystems Inc.  
 Perficient, Inc.  
 Progress Software  
 Corporation  
 PTC Inc.  
 QAD Inc.  
 Qualys, Inc.  
 RCM Technologies, Inc.  
 RealPage, Inc.  
 Robert Half International  
 Inc.  
 Rollins, Inc.  
 S&P Global Inc.  
 Sabre Corporation  
 salesforce.com, inc.  
 Science Applications  
 International Corporation  
 Shutterstock, Inc.  
 SilverSun Technologies,  
 Inc.  
 SPAR Group, Inc.  
 SPS Commerce, Inc.  
 SS&C Technologies  
 Holdings, Inc.  
 Stamps.com Inc.  
 Sykes Enterprises,  
 Incorporated  
 Synopsys, Inc.  
 Take-Two Interactive  
 Software, Inc.  
 TechTarget, Inc.  
 Teradata Corporation  
 The Interpublic Group of  
 Companies, Inc.  
 Travelzoo  
 TriNet Group, Inc.  
 TripAdvisor, Inc.

**SIC 70**

Extended Stay America,  
 Inc.  
 Hilton Worldwide Holdings  
 Inc.  
 Hyatt Hotels Corporation  
 Marriott International, Inc.  
 Marriott Vacations  
 Worldwide Corporation

**SIC 73**

ABM Industries  
 Incorporated  
 ACI Worldwide, Inc.  
 Activision Blizzard, Inc.  
 Adobe Inc.  
 Air Lease Corporation  
 Akamai Technologies, Inc.  
 Alphabet Inc.  
 American Software, Inc.  
 AMN Healthcare Services,  
 Inc.  
 ANSYS, Inc.  
 ARC Document Solutions,  
 Inc.  
 ASGN Incorporated  
 Aspen Technology, Inc.  
 Aware, Inc.  
 Barrett Business Services,  
 Inc.  
 BG Staffing, Inc.  
 Blackbaud, Inc.  
 Booking Holdings Inc.  
 Booz Allen Hamilton  
 Holding Corporation  
 Broadridge Financial  
 Solutions, Inc.  
 CACI International Inc  
 Cadence Design Systems,  
 Inc.  
 Cass Information Systems,  
 Inc.  
 CDK Global, Inc.  
 Cerner Corporation

EVERTEC, Inc.  
 Evolving Systems, Inc.  
 F5 Networks, Inc.  
 Facebook, Inc.  
 FactSet Research Systems  
 Inc.  
 Fair Isaac Corporation  
 Fidelity National  
 Information Services, Inc.  
 Finjan Holdings, Inc.  
 Fiserv, Inc.  
 FleetCor Technologies, Inc.  
 GlobalSCAPE, Inc.  
 Green Dot Corporation  
 Grubhub Inc.  
 Guidewire Software, Inc.  
 HealthEquity, Inc.  
 HealthStream, Inc.  
 Heidrick & Struggles  
 International, Inc.  
 IAC/InterActiveCorp  
 Information Services  
 Group, Inc.  
 Insignia Systems, Inc.  
 Insperity, Inc.  
 Intelligent Systems  
 Corporation  
 International Business  
 Machines Corporation  
 Intuit Inc.  
 Issuer Direct Corporation  
 j2 Global, Inc.  
 Jack Henry & Associates,  
 Inc.  
 KAR Auction Services, Inc.  
 Kelly Services, Inc.  
 Kforce Inc.  
 Korn Ferry  
 LogMeIn, Inc.  
 Manhattan Associates, Inc.  
 ManpowerGroup Inc.  
 ManTech International  
 Corporation

Oracle Corporation  
 Park City Group, Inc.  
 Paycom Software, Inc.  
 Paylocity Holding  
 Corporation  
 Pegasystems Inc.  
 Perficient, Inc.  
 Progress Software  
 Corporation  
 PTC Inc.  
 QAD Inc.  
 Qualys, Inc.  
 RCM Technologies, Inc.  
 RealPage, Inc.  
 Robert Half International  
 Inc.  
 Rollins, Inc.  
 S&P Global Inc.  
 Sabre Corporation  
 salesforce.com, inc.  
 Science Applications  
 International Corporation  
 Shutterstock, Inc.  
 SilverSun Technologies,  
 Inc.  
 SPAR Group, Inc.  
 SPS Commerce, Inc.  
 SS&C Technologies  
 Holdings, Inc.  
 Stamps.com Inc.  
 Sykes Enterprises,  
 Incorporated  
 Synopsys, Inc.  
 Take-Two Interactive  
 Software, Inc.  
 TechTarget, Inc.  
 Teradata Corporation  
 The Interpublic Group of  
 Companies, Inc.  
 Travelzoo  
 TriNet Group, Inc.  
 TripAdvisor, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

TrueBlue, Inc.  
 TSR, Inc.  
 TTEC Holdings, Inc.  
 Tyler Technologies, Inc.  
 United Rentals, Inc.  
 Veeva Systems Inc.  
 Verint Systems Inc.  
 Viad Corp  
 Virtusa Corporation  
 WEX Inc.  
 Willis Lease Finance Corporation  
 Yelp Inc.  
 Zix Corporation

Kforce Inc.  
 ManpowerGroup Inc.  
 TrueBlue, Inc.

International Business Machines Corporation  
 Intuit Inc.  
 Issuer Direct Corporation  
 j2 Global, Inc.  
 Jack Henry & Associates, Inc.  
 LogMeIn, Inc.  
 Manhattan Associates, Inc.  
 ManTech International Corporation  
 MercadoLibre, Inc.  
 Microsoft Corporation  
 MicroStrategy Incorporated  
 Morningstar, Inc.  
 National Instruments Corporation  
 Net 1 UEPS Technologies, Inc.  
 NetScout Systems, Inc.  
 NetSol Technologies, Inc.  
 NextGen Healthcare, Inc.  
 NIC Inc.  
 NortonLifeLock Inc.  
 Omnicell, Inc.  
 Oracle Corporation  
 Park City Group, Inc.  
 Paycom Software, Inc.  
 Paylocity Holding Corporation  
 Pegasystems Inc.  
 Perficient, Inc.  
 Progress Software Corporation  
 PTC Inc.  
 QAD Inc.  
 Qualys, Inc.  
 RealPage, Inc.  
 Sabre Corporation  
 salesforce.com, inc.  
 Science Applications International Corporation  
 Shutterstock, Inc.  
 SilverSun Technologies, Inc.  
 SPS Commerce, Inc.  
 SS&C Technologies Holdings, Inc.  
 Stamps.com Inc.  
 Sykes Enterprises, Incorporated  
 Synopsys, Inc.  
 Take-Two Interactive Software, Inc.  
 TechTarget, Inc.  
 Teradata Corporation  
 Travelzoo  
 TriNet Group, Inc.  
 TripAdvisor, Inc.  
 TSR, Inc.  
 Tyler Technologies, Inc.  
 Veeva Systems Inc.

**SIC 737**

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ACI Worldwide, Inc.  
 Activision Blizzard, Inc.  
 Adobe Inc.  
 Akamai Technologies, Inc.  
 Alphabet Inc.  
 American Software, Inc.  
 ANSYS, Inc.  
 Aspen Technology, Inc.  
 Aware, Inc.  
 Blackbaud, Inc.  
 Booking Holdings Inc.  
 Booz Allen Hamilton Holding Corporation  
 Broadridge Financial Solutions, Inc.  
 CACI International Inc  
 Cadence Design Systems, Inc.  
 CDK Global, Inc.  
 Cerner Corporation  
 Citrix Systems, Inc.  
 Cognizant Technology Solutions Corporation  
 CoreLogic, Inc.  
 CoStar Group, Inc.  
 CSG Systems International, Inc.  
 CSP Inc.  
 CynergisTek, Inc.  
 DXC Technology Company  
 eBay Inc.  
 Ebix, Inc.  
 Electronic Arts Inc.  
 EPAM Systems, Inc.  
 EVERTEC, Inc.  
 Evolving Systems, Inc.  
 F5 Networks, Inc.  
 Facebook, Inc.  
 FactSet Research Systems Inc.  
 Fair Isaac Corporation  
 Fidelity National Information Services, Inc.  
 Finjan Holdings, Inc.  
 Fiserv, Inc.  
 FleetCor Technologies, Inc.  
 GlobalSCAPE, Inc.  
 Grubhub Inc.  
 Guidewire Software, Inc.  
 HealthEquity, Inc.  
 HealthStream, Inc.  
 IAC/InterActiveCorp  
 Information Services Group, Inc.  
 Intelligent Systems Corporation

**SIC 735**

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Air Lease Corporation  
 McGrath RentCorp  
 Mobile Mini, Inc.  
 United Rentals, Inc.  
 Willis Lease Finance Corporation

**SIC 736**

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AMN Healthcare Services, Inc.  
 ASGN Incorporated  
 Barrett Business Services, Inc.  
 Cross Country Healthcare, Inc.  
 DHI Group, Inc.  
 Heidrick & Struggles International, Inc.  
 Insperity, Inc.  
 Kelly Services, Inc.  
 Kforce Inc.  
 Korn Ferry  
 ManpowerGroup Inc.  
 Mastech Digital, Inc.  
 RCM Technologies, Inc.  
 Robert Half International Inc.  
 TrueBlue, Inc.

**SIC 7361**

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AMN Healthcare Services, Inc.  
 DHI Group, Inc.  
 Heidrick & Struggles International, Inc.  
 Korn Ferry  
 Mastech Digital, Inc.

**SIC 7363**

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ASGN Incorporated  
 Barrett Business Services, Inc.  
 Cross Country Healthcare, Inc.  
 Insperity, Inc.  
 Kelly Services, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Verint Systems Inc.  
 Virtusa Corporation  
 WEX Inc.  
 Yelp Inc.  
 Zix Corporation

**SIC 7374**

CoreLogic, Inc.  
 CSG Systems International, Inc.  
 CynergisTek, Inc.  
 EVERTEC, Inc.  
 Fidelity National Information Services, Inc.  
 Fiserv, Inc.  
 FleetCor Technologies, Inc.  
 Information Services Group, Inc.  
 Net 1 UEPS Technologies, Inc.  
 Sykes Enterprises, Incorporated  
 TriNet Group, Inc.  
 WEX Inc.

Monarch Casino & Resort, Inc.  
 Penn National Gaming, Inc.  
 Six Flags Entertainment Corporation  
 Vail Resorts, Inc.  
 Wynn Resorts, Limited

**SIC 7372**

Activision Blizzard, Inc.  
 American Software, Inc.  
 ANSYS, Inc.  
 Aspen Technology, Inc.  
 Aware, Inc.  
 Cadence Design Systems, Inc.  
 Citrix Systems, Inc.  
 Ebix, Inc.  
 Electronic Arts Inc.  
 Finjan Holdings, Inc.  
 GlobalSCAPE, Inc.  
 Guidewire Software, Inc.  
 HealthStream, Inc.  
 Intelligent Systems Corporation  
 Intuit Inc.  
 MicroStrategy Incorporated  
 National Instruments Corporation  
 NetSol Technologies, Inc.  
 NextGen Healthcare, Inc.  
 NortonLifeLock Inc.  
 Park City Group, Inc.  
 Pegasystems Inc.  
 PTC Inc.  
 Qualys, Inc.  
 RealPage, Inc.  
 salesforce.com, inc.  
 SS&C Technologies Holdings, Inc.  
 Synopsys, Inc.  
 Take-Two Interactive Software, Inc.

**SIC 738**

ARC Document Solutions, Inc.  
 Cass Information Systems, Inc.  
 Collectors Universe, Inc.  
 Green Dot Corporation  
 KAR Auction Services, Inc.  
 National Research Corporation  
 SPAR Group, Inc.  
 TTEC Holdings, Inc.  
 Viad Corp

**SIC 79**

Bowl America Incorporated  
 Boyd Gaming Corporation  
 Canterbury Park Holding Corporation  
 Cedar Fair, L.P.  
 Century Casinos, Inc.  
 Churchill Downs Incorporated  
 Dover Motorsports, Inc.  
 Eldorado Resorts, Inc.  
 Las Vegas Sands Corp.  
 MGM Resorts International  
 Monarch Casino & Resort, Inc.  
 Penn National Gaming, Inc.  
 Six Flags Entertainment Corporation  
 Vail Resorts, Inc.  
 Wilhelmina International, Inc.  
 Wynn Resorts, Limited

**SIC 799**

Boyd Gaming Corporation  
 Cedar Fair, L.P.  
 Century Casinos, Inc.  
 Eldorado Resorts, Inc.  
 Las Vegas Sands Corp.  
 MGM Resorts International

**SIC 8**

Acadia Healthcare Company, Inc.  
 Addus HomeCare Corporation  
 Adtalem Global Education Inc.  
 Amedisys, Inc.  
 American Public Education, Inc.  
 American Shared Hospital Services  
 Argan, Inc.  
 BioTelemetry, Inc.  
 Bright Horizons Family Solutions Inc.  
 Charles River Laboratories International, Inc.  
 CRA International, Inc.  
 DaVita Inc.  
 DLH Holdings Corp.  
 Encompass Health Corporation  
 Exponent, Inc.  
 FONAR Corporation  
 Forrester Research, Inc.  
 Franklin Covey Co.  
 Gartner, Inc.  
 GP Strategies Corporation  
 Grand Canyon Education, Inc.  
 Huron Consulting Group Inc.  
 ICF International, Inc.  
 IQVIA Holdings Inc.  
 K12 Inc.  
 Laboratory Corporation of America Holdings  
 LHC Group, Inc.  
 Magellan Health, Inc.  
 MAXIMUS, Inc.  
 MEDNAX, Inc.  
 National HealthCare Corporation  
 NV5 Global, Inc.  
 Paychex, Inc.  
 PRA Health Sciences, Inc.  
 PRGX Global, Inc.  
 Psychedics Corporation  
 Quest Diagnostics Incorporated  
 RadNet, Inc.  
 Resources Connection, Inc.  
 Select Medical Holdings Corporation

**SIC 7373**

Broadridge Financial Solutions, Inc.  
 CACI International Inc  
 Cerner Corporation  
 CSP Inc.  
 F5 Networks, Inc.  
 Fair Isaac Corporation  
 Jack Henry & Associates, Inc.  
 Manhattan Associates, Inc.  
 ManTech International Corporation  
 NetScout Systems, Inc.  
 Omnicell, Inc.  
 Science Applications International Corporation  
 Tyler Technologies, Inc.

Appendix A: Companies (Main Set) in Each Industry, by SIC Code

Strategic Education, Inc.  
Syneos Health, Inc.  
Tetra Tech, Inc.  
The Ensign Group, Inc.  
The Hackett Group, Inc.  
Tivity Health, Inc.  
U.S. Physical Therapy, Inc.  
Universal Health Services,  
Inc.  
Vectrus, Inc.  
Willdan Group, Inc.

**SIC 87**

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Argan, Inc.  
Charles River Laboratories  
International, Inc.  
Exponent, Inc.  
Forrester Research, Inc.  
Gartner, Inc.  
Huron Consulting Group  
Inc.  
ICF International, Inc.  
IQVIA Holdings Inc.  
Magellan Health, Inc.  
MAXIMUS, Inc.  
NV5 Global, Inc.  
Paychex, Inc.  
PRA Health Sciences, Inc.  
PRGX Global, Inc.  
Resources Connection, Inc.  
Syneos Health, Inc.  
Tetra Tech, Inc.  
The Hackett Group, Inc.  
Vectrus, Inc.  
Willdan Group, Inc.

**SIC 80**

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Acadia Healthcare  
Company, Inc.  
Addus HomeCare  
Corporation  
Amedisys, Inc.  
American Shared Hospital  
Services  
BioTelemetry, Inc.  
DaVita Inc.  
DLH Holdings Corp.  
Encompass Health  
Corporation  
FONAR Corporation  
LHC Group, Inc.  
MEDNAX, Inc.  
National HealthCare  
Corporation  
Psychemedics Corporation  
Quest Diagnostics  
Incorporated  
RadNet, Inc.  
Select Medical Holdings  
Corporation  
The Ensign Group, Inc.  
Tivity Health, Inc.  
U.S. Physical Therapy, Inc.  
Universal Health Services,  
Inc.

**SIC 874**

---

Exponent, Inc.  
Huron Consulting Group  
Inc.  
ICF International, Inc.  
Magellan Health, Inc.  
MAXIMUS, Inc.  
The Hackett Group, Inc.  
Vectrus, Inc.

**SIC 809**

---

American Shared Hospital  
Services  
BioTelemetry, Inc.  
DaVita Inc.  
DLH Holdings Corp.  
Tivity Health, Inc.

**SIC 82**

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Adtalem Global Education  
Inc.  
American Public Education,  
Inc.  
Franklin Covey Co.  
GP Strategies Corporation  
Grand Canyon Education,  
Inc.  
K12 Inc.  
Strategic Education, Inc.

## Appendix B:

# SIC Codes in which Companies (Main Set) are Included

Appendix B is a list of the SIC codes in which each of the companies in the Main Set of companies are included in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* (data through December 2019).

Appendix B: SIC Codes in which Companies (Main Set) are Included

1347 Property Insurance Holdings, Inc.	PIH	6	63	633		Allison Transmission Holdings, Inc.	ALSN	3	37	371	3714
1-800-FLOWERS.COM, Inc.	FLWS	5	59			Ally Financial Inc.	ALLY	6	61		
1st Constitution Bancorp	FCCY	6	60	602		Alphabet Inc.	GOOGL	7	73	737	
1st Source Corporation	SRCE	6	60	602		Altra Industrial Motion Corp.	AIMC	3	35	356	
A. O. Smith Corporation	AOS	3	36			Altria Group, Inc.	MO	2			
AAON, Inc.	AAON	3	35			Amazon.com, Inc.	AMZN	5	59		
AAR Corp.	AIR	5	50			AMC Networks Inc.	AMCX	4	48	483	4833
AbbVie Inc.	ABBV	2	28	283	2836	AMCON Distributing Company	DIT	5	51		
Abercrombie & Fitch Co.	ANF	5	56	565		Amedisys, Inc.	AMED	8	80		
Abiomed, Inc.	ABMD	3	38	384	3841	AMERCO	UHAL	7			
ABM Industries Incorporated	ABM	7	73			Ameren Corporation	AEE	4	49	493	4931
Acadia Healthcare Company, Inc.	ABM	7	73			Ameresco, Inc.	AMRC	1	16		
Acadia Realty Trust	ACHC	8	80			America First Multifamily Investors, L.P.	ATAX	6	67		
ACCO Brands Corporation	ACCO	2	27		6798	American Airlines Group Inc.	AAL	4	45	451	
ACI Worldwide, Inc.	ACIW	7	73	737		American Assets Trust, Inc.	AAT	6	67		6798
Acme United Corporation	ACU	3	34	342		American Axle & Manufacturing Holdings, Inc.	AXL	3	37	371	3714
ACNB Corporation	ACNB	6	60	602		American Campus Communities, Inc.	ACC	6	67		6798
Activision Blizzard, Inc.	ATVI	7	73	737	7372	American Eagle Outfitters, Inc.	AEO	5	56		
Acuity Brands, Inc.	AYI	3	36			American Electric Power Company, Inc.	AEP	4	49		
Adams Resources & Energy, Inc.	AE	5	51	517		American Equity Investment Life Holding Company	AEL	6	63	631	
Addus HomeCare Corporation	ADUS	8	80			American Express Company	AXP	6	61		
Adobe Inc.	ADBE	7	73	737		American Financial Group, Inc.	AFG	6	63		
Adtalem Global Education Inc.	ATGE	8	82			American International Group, Inc.	AIG	6	63	633	
ADTRAN, Inc.	ADTN	3	36	366		American National Bankshares Inc.	AMNB	6	60	602	
Advance Auto Parts, Inc.	AAP	5	55			American National Insurance Company	ANAT	6	63		
Advanced Drainage Systems, Inc.	WMS	3	30	308		American Outdoor Brands Corporation	AOBC	3			
Advanced Energy Industries, Inc.	AEIS	3	36	367		American Public Education, Inc.	APEI	8	82		
AeroVironment, Inc.	AVAV	3	37			American Realty Investors, Inc.	ARL	6	65	651	
Affiliated Managers Group, Inc.	AMG	6	62	628		American River Bankshares	AMRB	6	60	602	
Aflac Incorporated	AFL	6	63	632		American Shared Hospital Services	AMS	8	80	809	
AGCO Corporation	AGCO	3	35			American Software, Inc.	AMSWA	7	73	737	7372
Agree Realty Corporation	ADC	6	67		6798	American States Water Company	AWR	4	49	494	
Air Lease Corporation	AL	7	73	735		American Tower Corporation (REIT)	AMT	6	67		6798
Air Products and Chemicals, Inc.	APD	2	28	281		American Vanguard Corporation	AVD	2	28	287	
Air Transport Services Group, Inc.	ATSG	4				American Water Works Company, Inc.	AWK	4	49	494	
Akamai Technologies, Inc.	AKAM	7	73	737		American Woodmark Corporation	AMWD	2	24		
Alamo Group Inc.	ALG	3	35			Ameriprise Financial, Inc.	AMP	6	62	621	
Alaska Air Group, Inc.	ALK	4	45	451		Ameris Bancorp	ABCB	6	60	602	
Alaska Communications Systems Group, Inc.	ALSK	4	48	481	4813	Amerisafe, Inc.	AMSF	6	63	633	
Albemarle Corporation	ALB	2	28			AmeriServ Financial, Inc.	ASRV	6	60	602	
Alcentra Capital Corporation	ABDC	6	67			AmerisourceBergen Corporation	ABC	5	51	512	
Alerus Financial Corporation	ALRS	6	60	602		Ames National Corporation	ATLO	6	60	602	
Alexander's, Inc.	ALX	6	67		6798	AMETEK, Inc.	AME	3			
Alexandria Real Estate Equities, Inc.	ARE	6	67		6798	Amgen Inc.	AMGN	2	28	283	2836
Alexion Pharmaceuticals, Inc.	ALXN	2	28	283	2836	Amkor Technology, Inc.	AMKR	3	36	367	3674
Align Technology, Inc.	ALGN	3	38	384		AMN Healthcare Services, Inc.	AMN	7	73	736	7361
Alleghany Corporation	Y	6	63	633		Amphenol Corporation	APH	3	36	367	
Allegiant Travel Company	ALGT	4	45	451							
ALLETE, Inc.	ALE	4	49	493	4931						
Alliance Resource Partners, L.P.	ARLP	1									
AllianceBernstein Holding L.P.	AB	6	67								
Alliant Energy Corporation	LNT	4	49	493	4931						
Allied Motion Technologies Inc.	AMOT	3	36	362	3621						

Appendix B: SIC Codes in which Companies (Main Set) are Included

Amtech Systems, Inc.	ASYS	3	35	355	3559	ATN International, Inc.	ATNI	4	48	481	4812
Analog Devices, Inc.	ADI	3	36	367	3674	Atrion Corporation	ATRI	3	38	384	3841
ANI Pharmaceuticals, Inc.	ANIP	2	28	283	2834	Auburn National Bancorporation, Inc.	AUBN	6	60	602	
Anika Therapeutics, Inc.	ANIK	2	28	283	2836	Autoliv, Inc.	ALV	3	37	371	3714
Anixter International Inc.	AXE	5	50	506		AutoNation, Inc.	AN	5	55		
Annaly Capital Management, Inc.	NLY	6	67		6798	AvalonBay Communities, Inc.	AVB	6	67		6798
ANSYS, Inc.	ANSS	7	73	737	7372	Avery Dennison Corporation	AVY	2	26		
Anthem, Inc.	ANTM	6	63	632	6324	Avista Corporation	AVA	4	49	493	4931
Anworth Mortgage Asset Corporation	ANH	6	67		6798	Avnet, Inc.	AVT	5	50	506	
Apartment Investment and Management Company	AIV	6	67		6798	AVX Corporation	AVX	3	36	367	
Apollo Commercial Real Estate Finance, Inc.	ARI	6	67		6798	Aware, Inc.	AWRE	7	73	737	7372
Apollo Global Management, Inc.	APO	6	62	628		Axcelis Technologies, Inc.	ACLS	3	35	355	3559
Apollo Investment Corporation	AINV	6	67			Axon Enterprise, Inc.	AAXN	3	34		
Apple Inc.	AAPL	3	36	366	3663	Axos Financial, Inc.	AX	6	60	603	6035
Applied Industrial Technologies, Inc.	AIT	5	50			AXT, Inc.	AXTI	3	36	367	3674
Applied Materials, Inc.	AMAT	3	35	355	3559	B&G Foods, Inc.	BGS	2	20	203	
Applied Optoelectronics, Inc.	AAOI	3	36	367	3674	Badger Meter, Inc.	BMI	3	38	382	
AptarGroup, Inc.	ATR	3	30	308		Balchem Corporation	BCPC	2	28	283	2834
Aramark	ARMK	5	58		5812	Ball Corporation	BLL	3	34		
Arbor Realty Trust, Inc.	ABR	6				Banc of California, Inc.	BANC	6	60	603	6035
ARC Document Solutions, Inc.	ARC	7	73	738		BancFirst Corporation	BANF	6	60	602	
ArcBest Corporation	ARCB	4	42		4213	BancorpSouth Bank	BXS	6	60	602	
Archer-Daniels-Midland Company	ADM	2	20			Bank First Corporation	BFC	6	60	602	
Ares Capital Corporation	ARCC	6	67			Bank of America Corporation	BAC	6	60	602	
Ares Commercial Real Estate Corporation	ACRE	6	67		6798	Bank of Commerce Holdings	BOCH	6	60	602	
Ares Management Corporation	ARES	6	62	628		Bank of Hawaii Corporation	BOH	6	60	602	
Argan, Inc.	AGX	8	87			Bank of Marin Bancorp	BMRC	6	60	602	
Arista Networks, Inc.	ANET	3	35	357		Bank of South Carolina Corporation	BKSC	6	60	602	
Ark Restaurants Corp.	ARKR	5	58		5812	Bank of the James Financial Group, Inc.	BOTJ	6	60	602	
Armada Hoffer Properties, Inc.	AHH	6	67		6798	Bank OZK	OZK	6	60	602	
Armstrong World Industries, Inc.	AWI	3	32			BankFinancial Corporation	BFIN	6	60	602	
Arrow Electronics, Inc.	ARW	5	50			BankUnited, Inc.	BKU	6	60	602	
Arrow Financial Corporation	AROW	6	60	602		Bankwell Financial Group, Inc.	BWFG	6	60	602	
Artesian Resources Corporation	ARTNA	4	49	494		Banner Corporation	BANR	6	60	602	
Arthur J. Gallagher & Co.	AJG	6	64			Bar Harbor Bankshares	BHB	6	60	602	
Artisan Partners Asset Management Inc.	APAM	6	62	628		Barnes Group Inc.	B	3			
Asbury Automotive Group, Inc.	ABG	5	55			Barrett Business Services, Inc.	BBSI	7	73	736	7363
ASGN Incorporated	ASGN	7	73	736	7363	Bassett Furniture Industries, Incorporated	BSET	2	25	251	
Ashland Global Holdings Inc.	ASH	2	28			Baxter International Inc.	BAX	2	28	283	2834
Aspen Technology, Inc.	AZPN	7	73	737	7372	BayCom Corp	BCML	6	60	602	
Associated Banc-Corp	ASB	6	60	602		BBX Capital Corporation	BBX	6	60	603	6035
Assurant, Inc.	AIZ	6	63			BCB Bancorp, Inc.	BCBP	6	60	602	
Asta Funding, Inc.	ASFI	6	61			Beacon Roofing Supply, Inc.	BECN	5	50		
Astec Industries, Inc.	ASTE	3	35	353		Beasley Broadcast Group, Inc.	BBGI	4	48	483	4832
Astronics Corporation	ATRO	3	36			Beazer Homes USA, Inc.	BZH	1	15		
AstroNova, Inc.	ALOT	3				Becton, Dickinson and Company	BDX	3	38	384	3841
AT&T Inc.	T	4	48	481	4812	Belden Inc.	BDC	3	36	367	
Atlantic American Corporation	AAME	6	63			Benchmark Electronics, Inc.	BHE	3	36	367	3672
Atlantic Union Bankshares Corporation	AUB	6	60	602		Berkshire Hills Bancorp, Inc.	BHLB	6	60	602	
Atlas Air Worldwide Holdings, Inc.	AAWW	4	45			Best Buy Co., Inc.	BBY	5	57		
Atmos Energy Corporation	ATO	4	49	492	4924	BG Staffing, Inc.	BGSF	7	73		
						BGC Partners, Inc.	BGCP	6			
						Big 5 Sporting Goods Corporation	BGFV	5	59	594	
						Big Lots, Inc.	BIG	5	53	533	
						Biogen Inc.	BIIB	2	28	283	2836
						Bio-Rad Laboratories, Inc.	BIO	3	38	382	3826

Appendix B: SIC Codes in which Companies (Main Set) are Included

BioSpecifics Technologies Corp.	BSTC	2	28	283	2834
Bio-Techne Corporation	TECH	2	28	283	
BioTelemetry, Inc.	BEAT	8	80	809	
BJ's Restaurants, Inc.	BJRI	5	58		5812
BK Technologies Corporation	BKTI	3	36	366	3663
Black Hills Corporation	BKH	4	49		
Blackbaud, Inc.	BLKB	7	73	737	
BlackRock Capital Investment Corporation	BKCC	6	67		
BlackRock TCP Capital Corp.	TCPC	6	67		
BlackRock, Inc.	BLK	6	62	628	
Blackstone Mortgage Trust, Inc.	BXMT	6	67		6798
Bloomin' Brands, Inc.	BLMN	5	58		5812
Boise Cascade Company	BCC	5	50		
BOK Financial Corporation	BOKF	6	60	602	
Booking Holdings Inc.	BKNG	7	73	737	
Boot Barn Holdings, Inc.	BOOT	5	56		
Booz Allen Hamilton Holding Corporation	BAH	7	73	737	
BorgWarner Inc.	BWA	3	37	371	3714
Boston Private Financial Holdings, Inc.	BPFH	6	60	602	
Boston Properties, Inc.	BXP	6	67		6798
Boston Scientific Corporation	BSX	3	38	384	
Bowl America Incorporated	BWL.A	7	79		
Boyd Gaming Corporation	BYD	7	79	799	
BP Prudhoe Bay Royalty Trust	BPT	6	67		
Brady Corporation	BRC	3	39		
Braemar Hotels & Resorts, Inc.	BHR	6	67		6798
Brandywine Realty Trust	BDN	6	67		6798
Bridge Bancorp, Inc.	BDGE	6	60	602	
Bridgford Foods Corporation	BRID	2	20	201	
Briggs & Stratton Corporation	BGG	3	35		
Bright Horizons Family Solutions Inc.	BFAM	8			
BrightSphere Investment Group Inc.	BSIG	6	62	628	
Bristol-Myers Squibb Company	BMJ	2	28	283	2834
Brixmor Property Group Inc.	BRX	6	67		6798
Broadcom Inc.	AVGO	3	36	367	3674
Broadridge Financial Solutions, Inc.	BR	7	73	737	7373
Broadway Financial Corporation	BYFC	6	60	603	6035
Brookline Bancorp, Inc.	BRKL	6	60	603	6035
Brown & Brown, Inc.	BRO	6	64		
Brown-Forman Corporation	BF.B	2	20	208	
BRT Apartments Corp.	BRT	6	67		6798
Bruker Corporation	BRKR	3	38	382	3826
Brunswick Corporation	BC	3			
Bryn Mawr Bank Corporation	BMTC	6	60	602	
Builders FirstSource, Inc.	BLDR	2	24		
Burlington Stores, Inc.	BURL	5	56		
BWX Technologies, Inc.	BWXT	3	35		
C&F Financial Corporation	CFFI	6	60	602	
C.H. Robinson Worldwide, Inc.	CHRW	4	42		4213
Cabot Corporation	CBT	2	28		
Cabot Microelectronics Corporation	CCMP	2	28		
Cabot Oil & Gas Corporation	COG	1	13	131	
CACI International Inc	CACI	7	73	737	7373
Cadence Design Systems, Inc.	CDNS	7	73	737	7372

Caleres, Inc.	CAL	3	31		
California Water Service Group	CWT	4	49	494	
Callaway Golf Company	ELY	3	39		
Callon Petroleum Company	CPE	1	13	131	
Cambridge Bancorp	CATC	6	60	602	
Camden National Corporation	CAC	6	60	602	
Camden Property Trust	CPT	6	67		6798
Campbell Soup Company	CPB	2	20		
Cantel Medical Corp.	CMD	3	38	384	
Canterbury Park Holding Corporation	CPHC	7	79		
Capital City Bank Group, Inc.	CCBG	6	60	602	
Capital One Financial Corporation	COF	6			
Capital Southwest Corporation	CSWC	6	67		
Capitol Federal Financial, Inc.	CFFN	6	60	603	6035
Cardinal Health, Inc.	CAH	5	51	512	
CareTrust REIT, Inc.	CTRE	6	67		6798
Carolina Financial Corporation	CARO	6	60	602	
Carpenter Technology Corporation	CRS	3	33	331	
Carriage Services, Inc.	CSV	7			
Carrols Restaurant Group, Inc.	TAST	5	58		5812
Carter Bank & Trust	CARE	6	60	602	
Carter's, Inc.	CRI	2	23		
Casey's General Stores, Inc.	CASY	5	54	541	
Cass Information Systems, Inc.	CASS	7	73	738	
Catalent, Inc.	CTLT	2	28	283	
Caterpillar Inc.	CAT	3			
Cathay General Bancorp	CATY	6	60	602	
Cavco Industries, Inc.	CVCO	2	24		
CB Financial Services, Inc.	CBFV	6	60	602	
CBRE Group, Inc.	CBRE	6	65		
CDK Global, Inc.	CDK	7	73	737	
CDW Corporation	CDW	5	50	504	5045
Cedar Fair, L.P.	FUN	7	79	799	
Celanese Corporation	CE	2	28		
Cemtrex, Inc.	CETX	3			
Centene Corporation	CNC	6	63	632	6324
CenterPoint Energy, Inc.	CNP	4	49		
CenterState Bank Corporation	CSFL	6	60	602	
Central Federal Corporation	CFBK	6	60	603	6035
Central Garden & Pet Company	CENTA	5	51		
Central Pacific Financial Corp.	CPF	6	60	602	
Central Valley Community Bancorp	CVCY	6	60	602	
Century Bancorp, Inc.	CNBKA	6	60	602	
Century Casinos, Inc.	CNTY	7	79	799	
Century Communities, Inc.	CCS	1	15		
CenturyLink, Inc.	CTL	4	48	481	4813
Cerner Corporation	CERN	7	73	737	7373
CEVA, Inc.	CEVA	6	67		6794
CF Industries Holdings, Inc.	CF	2	28	287	
Charles River Laboratories International, Inc.	CRL	8	87		
Charter Communications, Inc.	CHTR	4	48		
Chatham Lodging Trust	CLDT	6	67		6798
Chemung Financial Corporation	CHMG	6	60	602	
Cheniere Energy Partners, L.P.	CQP	5	51	517	
Chesapeake Utilities Corporation	CPK	4	49	492	
Chevron Corporation	CVX	2	29	291	

Appendix B: SIC Codes in which Companies (Main Set) are Included

Chicago Rivet & Machine Co.	CVR	3	34				
Chico's FAS, Inc.	CHS	5	56				
China Automotive Systems, Inc.	CAAS	3	37	371	3714		
China HGS Real Estate Inc.	HGSH	6	65				
Chipotle Mexican Grill, Inc.	CMG	5	58		5812		
Church & Dwight Co., Inc.	CHD	2	28	284			
Churchill Downs Incorporated	CHDN	7	79				
Chuy's Holdings, Inc.	CHUY	5	58		5812		
Ciena Corporation	CIEN	3	36	366			
Cigna Corporation	CI	6	63	632	6324		
Cincinnati Financial Corporation	CINF	6	63	633			
Cinemark Holdings, Inc.	CNK	7					
Ciner Resources LP	CINR	1	14				
Cintas Corporation	CTAS	7					
CIRCOR International, Inc.	CIR	3					
Cirrus Logic, Inc.	CRUS	3	36	367	3674		
Cisco Systems, Inc.	CSCO	3	35	357			
CIT Group Inc.	CIT	6	60	602			
Citi Trends, Inc.	CTRN	5	56	565			
Citigroup Inc.	C	6					
Citizens & Northern Corporation	CZNC	6	60	602			
Citizens Community Bancorp, Inc.	CZWI	6	60	602			
Citizens Financial Group, Inc.	CFG	6	60	602			
Citizens Holding Company	CIZN	6	60	602			
Citrix Systems, Inc.	CTXS	7	73	737	7372		
City Holding Company	CHCO	6	60	602			
City Office REIT, Inc.	CIO	6	67		6798		
Civista Bancshares, Inc.	CIVB	6	60	602			
Clearfield, Inc.	CLFD	3	36	367			
Clearwater Paper Corporation	CLW	2	26				
CME Group Inc.	CME	6	62				
CMS Energy Corporation	CMS	4	49				
CNA Financial Corporation	CNA	6	63	633			
CNB Financial Corporation	CCNE	6	60	602			
CNO Financial Group, Inc.	CNO	6	63	632			
CNX Midstream Partners LP	CNXM	4	49	492	4922		
Coca-Cola Consolidated, Inc.	COKE	2	20	208			
Coda Octopus Group, Inc.	CODA	3	38				
Codorus Valley Bancorp, Inc.	CVLY	6	60	602			
Coffee Holding Co., Inc.	JVA	5	51				
Cogent Communications Holdings, Inc.	CCOI	4	48	481	4813		
Cognex Corporation	CGNX	3	38	382			
Cognizant Technology Solutions Corporation	CTSH	7	73	737			
Cohen & Steers, Inc.	CNS	6	62	628			
Coherent, Inc.	COHR	3	38	382	3826		
Cohu, Inc.	COHU	3	38	382	3825		
Colfax Corporation	CFX	3	35				
Colgate-Palmolive Company	CL	2	28	284			
Collectors Universe, Inc.	CLCT	7	73	738			
Colony Bancorp, Inc.	CBAN	6	60	602			
Columbia Banking System, Inc.	COLB	6	60	602			
Columbia Property Trust, Inc.	CXP	6	67		6798		
Columbia Sportswear Company	COLM	2	23				
Columbus McKinnon Corporation	CMCO	3	35	353			
Comerica Incorporated	CMA	6	60	602			
Comfort Systems USA, Inc.	FIX	1					
Commerce Bancshares, Inc.	CBSH	6	60	602			
Commercial Metals Company	CMC	3	33	331			
Commercial Vehicle Group, Inc.	CVGI	3	37	371	3714		
CommScope Holding Company, Inc.	COMM	3	36	366	3663		
Community Bank System, Inc.	CBU	6	60	602			
Community Bankers Trust Corporation	ESXB	6	60	602			
Community Trust Bancorp, Inc.	CTBI	6	60	602			
Community West Bancshares	CWBC	6	60	602			
Compass Minerals International, Inc.	CMP	1	14				
CompX International Inc.	CIX	3	34	342			
Comtech Telecommunications Corp.	CMTL	3	36	366	3663		
Conagra Brands, Inc.	CAG	2	20				
CONMED Corporation	CNMD	3	38	384	3845		
ConnectOne Bancorp, Inc.	CNOB	6	60	602			
Conn's, Inc.	CONN	5	57				
ConocoPhillips Company	COP	1	13	131			
Consolidated Edison, Inc.	ED	4	49				
Consolidated-Tomoka Land Co.	CTO	6	65				
Continental Building Products, Inc.	CBPX	3	32				
Continental Resources, Inc.	CLR	1	13	131			
Cooper Tire & Rubber Company	CTB	3	30				
Cooper-Standard Holdings Inc.	CPS	3	37	371	3714		
Copart, Inc.	CPRT	5	50				
Corcept Therapeutics Incorporated	CORT	2	28	283	2834		
Core Molding Technologies, Inc.	CMT	3	30	308			
CoreCivic, Inc.	CXW	6	67		6798		
CoreLogic, Inc.	CLGX	7	73	737	7374		
Core-Mark Holding Company, Inc.	CORE	5	51				
CorEnergy Infrastructure Trust, Inc.	CORR	6	67		6798		
CoreSite Realty Corporation	COR	6	67		6798		
Cornerstone Building Brands, Inc.	CNR	3	34				
Corning Incorporated	GLW	3					
Corporate Office Properties Trust	OFC	6	67		6798		
Cortland Bancorp	CLDB	6	60	602			
CorVel Corporation	CRVL	6	64				
CoStar Group, Inc.	CSGP	7	73	737			
Costco Wholesale Corporation	COST	5	53				
Cousins Properties Incorporated	CUZ	6	67		6798		
Covanta Holding Corporation	CVA	4	49	495			
Covenant Transportation Group, Inc.	CVTI	4	42		4213		
Cowen Inc.	COWN	6	62	628			
CRA International, Inc.	CRAI	8					
Cracker Barrel Old Country Store, Inc.	CBRL	5	58		5812		
Craft Brew Alliance, Inc.	BREW	2	20	208			
Crane Co.	CR	3					
Crawford & Company	CRD.A	6	64				
Credit Acceptance Corporation	CACC	6	61	614			
Cross Country Healthcare, Inc.	CCRN	7	73	736	7363		
Cross Timbers Royalty Trust	CRT	6	67				
CrossAmerica Partners LP	CAPL	5	51	517			
Crown Castle International Corp. (REIT)	CCI	6	67		6798		

## Appendix B: SIC Codes in which Companies (Main Set) are Included

Crown Crafts, Inc.	CRWS	2	22						
Crown Holdings, Inc.	CCK	3	34						
CSG Systems International, Inc.	CSGS	7	73	737	7374				
CSP Inc.	CSPI	7	73	737	7373				
CSX Corporation	CSX	4							
CTS Corporation	CTS	3	36	367					
CubeSmart	CUBE	6	67		6798				
Cubic Corporation	CUB	3							
Cullen/Frost Bankers, Inc.	CFR	6	60	602					
Culp, Inc.	CULP	2	22						
Curtiss-Wright Corporation	CW	3							
Customers Bancorp, Inc.	CUBI	6	60	602					
CVB Financial Corp.	CVBF	6	60	602					
CVD Equipment Corporation	CVV	3	35	355	3559				
CVR Energy, Inc.	CVI	2	29	291					
CVS Health Corporation	CVS	5	59						
CyberOptics Corporation	CYBE	3	38	382					
CynergisTek, Inc.	CTEK	7	73	737	7374				
D.R. Horton, Inc.	DHI	1	15						
Daktronics, Inc.	DAKT	3	39						
Dana Incorporated	DAN	3	37	371	3714				
Danaher Corporation	DHR	3	38						
Darden Restaurants, Inc.	DRI	5	58		5812				
Darling Ingredients Inc.	DAR	2	20						
Data I/O Corporation	DAIO	3	38	382	3825				
Dave & Buster's Entertainment, Inc.	PLAY	5	58						
DaVita Inc.	DVA	8	80	809					
DCP Midstream, LP	DCP	1	13	131					
Deere & Company	DE	3	35						
Delek Logistics Partners, LP	DKL	5	51	517					
Delek US Holdings, Inc.	DK	2	29	291					
Delta Air Lines, Inc.	DAL	4	45	451					
Delta Apparel, Inc.	DLA	2	23						
Deluxe Corporation	DLX	2	27						
Denny's Corporation	DENN	5	58		5812				
Designer Brands Inc.	DBI	5	56						
DHI Group, Inc.	DHX	7	73	736	7361				
Diamond Hill Investment Group, Inc.	DHIL	6	62	628					
Diamondback Energy, Inc.	FANG	1	13	131					
DiamondRock Hospitality Company	DRH	6	67		6798				
DICK'S Sporting Goods, Inc.	DKS	5	59	594					
Digi International Inc.	DGII	3	35	357					
Digital Realty Trust, Inc.	DLR	6	67		6798				
Dillard's, Inc.	DDS	5	53						
Dime Community Bancshares, Inc.	DCOM	6	60	603	6035				
Diodes Incorporated	DIOD	3	36	367	3674				
Discover Financial Services	DFS	6	61	614					
Discovery, Inc.	DISCA	4	48						
DISH Network Corporation	DISH	4	48						
DiversiFax, Inc.,	GURE	2	28	281					
Diversified Healthcare Trust	DHC	6	67		6798				
DLH Holdings Corp.	DLHC	8	80	809					
Dolby Laboratories, Inc.	DLB	6	67		6794				
Dollar General Corporation	DG	5	53	533					
Dollar Tree, Inc.	DLTR	5	53	533					
Dominion Energy, Inc.	D	4	49						
Domtar Corporation	UFS	2	26	262					
Donaldson Company, Inc.	DCI	3							
Donegal Group Inc.	DGICA	6	63	633					
Dorchester Minerals, L.P.	DMLP	6	67						
Dorman Products, Inc.	DORM	3	37	371	3714				
Douglas Dynamics, Inc.	FLOW	3							
Douglas Emmett, Inc.	DEI	6	67		6798				
Dover Corporation	DOV	3	35						
Dover Motorsports, Inc.	DVD	7	79						
Dril-Quip, Inc.	DRQ	3	35	353					
DTE Energy Company	DTE	4	49	493	4931				
Ducommun Incorporated	DCO	3	37						
Duke Energy Corporation	DUK	4	49	493	4931				
Duke Realty Corporation	DRE	6	67		6798				
Dunkin' Brands Group, Inc.	DNKN	5	58		5812				
DuPont de Nemours, Inc.	DD	2	28						
DXC Technology Company	DXC	7	73	737					
E*TRADE Financial Corporation	ETFC	6	62	621					
Eagle Bancorp, Inc.	EGBN	6	60	602					
Eagle Materials Inc.	EXP	3	32						
East West Bancorp, Inc.	EWBC	6	60	602					
EastGroup Properties, Inc.	EGP	6	67		6798				
Eastman Chemical Company	EMN	2	28						
Eaton Vance Corp.	EV	6	62	628					
eBay Inc.	EBAY	7	73	737					
Ebix, Inc.	EBIX	7	73	737	7372				
Echo Global Logistics, Inc.	ECHO	4	47	473					
EchoStar Corporation	SATS	3	36	366	3663				
Edison International	EIX	4	49	491					
Edwards Lifesciences Corporation	EW	3	38	384	3842				
El Paso Electric Company	EE	4	49	491					
El Pollo Loco Holdings, Inc.	LOCO	5	58		5812				
Eldorado Resorts, Inc.	ERI	7	79	799					
Electromed, Inc.	ELMD	3	38	384	3845				
Electronic Arts Inc.	EA	7	73	737	7372				
Electro-Sensors, Inc.	ELSE	3	38	382					
Eli Lilly and Company	LLY	2	28	283	2834				
Elmira Savings Bank	ESBK	6	60	603	6035				
Emclaire Financial Corp	EMCF	6	60	602					
EMCOR Group, Inc.	EME	1							
Emergent BioSolutions Inc.	EBS	2	28	283	2836				
Emerson Electric Co.	EMR	3							
Empire State Realty Trust, Inc.	ESRT	6	67		6798				
Employers Holdings, Inc.	EIG	6	63	633					
Enable Midstream Partners, LP	ENBL	4	49	492	4922				
Enanta Pharmaceuticals, Inc.	ENTA	2	28	283	2836				
Encompass Health Corporation	EHC	8	80						
Encore Capital Group, Inc.	ECPG	6	61						
Encore Wire Corporation	WIRE	3	33						
Energy Transfer LP	ET	4							
EnerSys	ENS	3	36	369					
Enova International, Inc.	ENVA	6	61	614					
EnPro Industries, Inc.	NPO	3							
Entegris, Inc.	ENTG	3	35	355	3559				
Energy Corporation	ETR	4	49	491					
Enterprise Bancorp, Inc.	EBTC	6	60	602					
Enterprise Financial Services Corp	EFSC	6	60	602					
EOG Resources, Inc.	EOG	1	13	131					
EPAM Systems, Inc.	EPAM	7	73	737					
ePlus inc.	PLUS	5	50	504	5045				

Appendix B: SIC Codes in which Companies (Main Set) are Included

EPR Properties	EPR	6	67	6798	Fidelity National Information Services, Inc.	FIS	7	73	737	7374	
EQM Midstream Partners, LP	EQM	4	49	492	4922	Fidus Investment Corporation	FDUS	6	67		
Equifax Inc.	EFX	7	73			Fiesta Restaurant Group, Inc.	FRGI	5	58		5812
Equinix, Inc. (REIT)	EQIX	6	67	6798		Fifth Third Bancorp	FITB	6	60	602	
Equity Commonwealth	EQC	6	67	6798		Financial Institutions, Inc.	FISI	6	60	602	
Equity LifeStyle Properties, Inc.	ELS	6	67	6798		Finjan Holdings, Inc.	FNJN	7	73	737	7372
Equity Residential	EQR	6	67	6798		First American Financial Corporation	FAF	6	63		
Era Group Inc.	ERA	4	45			First Bancorp	FBNC	6	60	602	
Erie Indemnity Company	ERIE	6	64			First BanCorp.	FBP	6	60	602	
Escalade, Incorporated	ESCA	3	39			First Bank	FRBA	6	60	602	
ESCO Technologies Inc.	ESE	3				First Busey Corporation	BUSE	6	60	602	
Espey Mfg. & Electronics Corp.	ESP	3	36	367		First Business Financial Services, Inc.	FBIZ	6	60	602	
ESSA Bancorp, Inc.	ESSA	6	60	603	6036	First Capital, Inc.	FCAP	6	60	602	
Essex Property Trust, Inc.	ESS	6	67	6798		First Citizens BancShares, Inc.	FCNCA	6	60	602	
Ethan Allen Interiors Inc.	ETH	2	25	251		First Commonwealth Financial Corporation	FCF	6	60	602	
Euronet Worldwide, Inc.	EEFT	6	60			First Community Bankshares, Inc.	FCBC	6	60	602	
Evans Bancorp, Inc.	EVBN	6	60	602		First Community Corporation	FCCO	6	60	602	
Evercore Inc.	EVR	6	62			First Defiance Financial Corp.	FDEF	6	60	603	6035
Ever-Glory International Group, Inc.	EVK	2	23			First Financial Bancorp.	FFBC	6	60	602	
Evergy, Inc.	EVRG	4	49	493	4931	First Financial Bankshares, Inc.	FFIN	6	60	602	
Eversource Energy	ES	4	49	493	4931	First Financial Corporation	THFF	6	60	602	
EVERTEC, Inc.	EVTC	7	73	737	7374	First Financial Northwest, Inc.	FFNW	6	60	602	
EVI Industries, Inc.	EVI	5	50			First Foundation Inc.	FFWM	6	60	602	
Evolution Petroleum Corporation	EPM	1	13	131		First Guaranty Bancshares, Inc.	FGBI	6	60	602	
Evolving Systems, Inc.	EVOL	7	73	737		First Horizon National Corporation	FHN	6	60	602	
Exelixis, Inc.	EXEL	2	28	283	2836	First Industrial Realty Trust, Inc.	FR	6	67		6798
Exelon Corporation	EXC	4	49	491		First Internet Bancorp	INBK	6	60	602	
Expedia Group, Inc.	EXPE	4	47			First Interstate BancSystem, Inc.	FIBK	6	60	602	
Expeditors International of Washington, Inc.	EXPD	4	47	473		First Merchants Corporation	FRME	6	60	602	
Exponent, Inc.	EXPO	8	87	874		First Mid Bancshares, Inc.	FMBH	6	60	602	
Express, Inc.	EXPR	5	56			First Midwest Bancorp, Inc.	FMBI	6	60	602	
Extended Stay America, Inc.	STAY	7	70			First National Corporation	FXNC	6	60	602	
Extra Space Storage Inc.	EXR	6	67		6798	First Republic Bank	FRC	6	60	602	
Exxon Mobil Corporation	XOM	2	29	291		First Savings Financial Group, Inc.	FSFG	6	60	602	
EZCORP, Inc.	EZPW	5	59			First Solar, Inc.	FSLR	3	36	367	3674
F.N.B. Corporation	FNB	6	60	602		First United Corporation	FUNC	6	60	602	
F5 Networks, Inc.	FFIV	7	73	737	7373	First US Bancshares, Inc.	FUSB	6	60	602	
Facebook, Inc.	FB	7	73	737		FirstCash, Inc.	FCFS	5	59		
FactSet Research Systems Inc.	FDS	7	73	737		Fiserv, Inc.	FISV	7	73	737	7374
Fair Isaac Corporation	FICO	7	73	737	7373	Five Below, Inc.	FIVE	5	53	533	
Farmer Bros. Co.	FARM	2	20			Flagstar Bancorp, Inc.	FBC	6	60	603	6035
Farmers & Merchants Bancorp, Inc.	FMAO	6	60	603	6035	Flanigan's Enterprises, Inc.	BDL	5	58		5812
Farmers National Banc Corp.	FMNB	6	60	602		FleetCor Technologies, Inc.	FLT	7	73	737	7374
Farmland Partners Inc.	FPI	6	67		6798	Flexible Solutions International Inc.	FSI	2	28	281	
FARO Technologies, Inc.	FARO	3	38	382		Flexsteel Industries, Inc.	FLXS	2	25	251	
Fastenal Company	FAST	5	50			FLIR Systems, Inc.	FLIR	3	38		
Fauquier Bankshares, Inc.	FBSS	6	60	602		Flowers Foods, Inc.	FLO	2	20		
FBL Financial Group, Inc.	FFG	6	63	631		Flowserve Corporation	FLS	3			
Federal Agricultural Mortgage Corporation	AGM	6	61			Fluor Corporation	FLR	1	16		
Federal Realty Investment Trust	FRT	6	67		6798	Flushing Financial Corporation	FFIC	6	60	602	
Federal Signal Corporation	FSS	3	37	371		FMC Corporation	FMC	2	28	287	
FedEx Corporation	FDX	4				FNCB Bancorp, Inc.	FNCB	6	60	602	
FedNat Holding Company	FNHC	6	63	633		FONAR Corporation	FONR	8	80		
Ferro Corporation	FOE	2	28								
Fidelity D & D Bancorp, Inc.	FDBC	6	60	602							
Fidelity National Financial, Inc.	FNF	6	63								

Appendix B: SIC Codes in which Companies (Main Set) are Included

Foot Locker, Inc.	FL	5	56			Graham Corporation	GHM	3	34		
FormFactor, Inc.	FORM	3	38	382	3825	Grand Canyon Education, Inc.	LOPE	8	82		
Forrester Research, Inc.	FORR	8	87			Granite Construction Incorporated	GVA	1	16		
Fortinet, Inc.	FTNT	3	35	357	3577	Graphic Packaging Holding Company	GPK	2	26	265	
Forward Air Corporation	FWRD	4	42			Gray Television, Inc.	GTN	4	48	483	4833
Fossil Group, Inc.	FOSL	3	38			Great Southern Bancorp, Inc.	GSBC	6	60	602	
Fox Factory Holding Corp.	FOXF	3	37			Great Western Bancorp, Inc.	GWB	6	60	602	
Francesca's Holdings Corporation	FRAN	5	56			Green Brick Partners, Inc.	GRBK	1	15		
Franchise Group, Inc.	FRG	7				Green Dot Corporation	GDOT	7	73	738	
Franklin Covey Co.	FC	8	82			Greene County Bancorp, Inc.	GCBC	6	60	603	6035
Franklin Electric Co., Inc.	FELE	3	36	362	3621	Greenhill & Co., Inc.	GHL	6	62	628	
Franklin Financial Network, Inc.	FSB	6	60	602		Greif, Inc.	GEF	2	26	265	
Franklin Financial Services Corporation	FRAF	6	60	602		Griffin Industrial Realty, Inc.	GRIF	6	65	651	
Franklin Resources, Inc.	BEN	6	62	628		Griffon Corporation	GFF	3	34		
Franklin Street Properties Corp.	FSP	6	67		6798	Group 1 Automotive, Inc.	GPI	5	55		
Friedman Industries, Incorporated	FRD	3	33	331		Grubhub Inc.	GRUB	7	73	737	
FS Bancorp, Inc.	FSBW	6	60	603	6036	Guaranty Federal Bancshares, Inc.	GFED	6	60	602	
FS KKR Capital Corp.	FSK	6	67			Guess?, Inc.	GES	2	23		
FSB Bancorp, Inc.	FSBC	6	60	603	6036	Guidewire Software, Inc.	GWRE	7	73	737	7372
Fulton Financial Corporation	FULT	6	60	602		H&R Block, Inc.	HRB	7			
FutureFuel Corp.	FF	2	28	286		H.B. Fuller Company	FUL	2	28		
FVCBankcorp, Inc.	FVCB	6	60	602		Haemonetics Corporation	HAE	3	38	384	3841
GAIN Capital Holdings, Inc.	GCAP	6	62			Hallador Energy Company	HNRG	1			
GAMCO Investors, Inc.	GBL	6	62	628		Hallmark Financial Services, Inc.	HALL	6	63	633	
GameStop Corp.	GME	5	57			Hancock Whitney Corporation	HWC	6	60	602	
Gaming and Leisure Properties, Inc.	GLPI	6	67		6798	Hanesbrands Inc.	HBI	2	23		
Gannett Co., Inc.	GCI	2	27			Hanmi Financial Corporation	HAFC	6	60	602	
Garrison Capital Inc.	GARS	6	67			Hannon Armstrong Sustainable Infrastructure Capital, Inc.	HASI	6	67		6798
Gartner, Inc.	IT	8	87			Harley-Davidson, Inc.	HOG	3	37		
GATX Corporation	GATX	4	47			Harsco Corporation	HSC	3			
Genasys Inc.	GNSS	3	36			Harvest Capital Credit Corporation	HCAP	6	67		
Gencor Industries, Inc.	GENC	3	35	356		Hasbro, Inc.	HAS	3	39		
Generac Holdings Inc.	GNRC	3	36	362	3621	Haverty Furniture Companies, Inc.	HVT	5	57		
General Dynamics Corporation	GD	3				Hawaiian Electric Industries, Inc.	HE	4	49	491	
General Mills, Inc.	GIS	2	20			Hawaiian Holdings, Inc.	HA	4	45	451	
General Motors Company	GM	3	37	371		Hawthorn Bancshares, Inc.	HWBK	6	60	602	
Genesco Inc.	GCO	5	56			Haynes International, Inc.	HAYN	3	33	331	
Gentex Corporation	GNTX	3	37	371	3714	HCI Group, Inc.	HCI	6	63	633	
Gentherm Incorporated	THRM	3	37	371	3714	HD Supply Holdings, Inc.	HDS	5	50		
Genuine Parts Company	GPC	5	50			Health Insurance Innovations, Inc.	HIQ	6	64		
German American Bancorp, Inc.	GABC	6	60	602		Healthcare Realty Trust Incorporated	HR	6	67		6798
Getty Realty Corp.	GTY	6	67		6798	Healthcare Trust of America, Inc.	HTA	6	67		6798
G-III Apparel Group, Ltd.	GIII	2	23			HealthEquity, Inc.	HQY	7	73	737	
Gilead Sciences, Inc.	GILD	2	28	283	2836	Healthpeak Properties, Inc.	PEAK	6	67		6798
Glacier Bancorp, Inc.	GBCI	6	60	602		HealthStream, Inc.	HSTM	7	73	737	7372
Gladstone Capital Corporation	GLAD	6	67			Heartland Express, Inc.	HTLD	4	42		4213
Gladstone Investment Corporation	GAIN	6	67			Heartland Financial USA, Inc.	HTLF	6	60	602	
Gladstone Land Corporation	LAND	6	67		6798	HEICO Corporation	HEI	3			
Glen Burnie Bancorp	GLBZ	6	60	602		Heidrick & Struggles International, Inc.	HSII	7	73	736	7361
Global Partners LP	GLP	5	51	517		Helios Technologies, Inc.	HLIO	3	34	349	
GlobalSCAPE, Inc.	GSB	7	73	737	7372	Helmerich & Payne, Inc.	HP	1	13		
Globe Life Inc.	GL	6	63								
Globus Medical, Inc.	GMED	3	38	384	3841						
Gold Resource Corporation	GORO	1									
Golub Capital BDC, Inc.	GBDC	6	67								
GP Strategies Corporation	GPX	8	82								
Graco Inc.	GGG	3	35	356							

Appendix B: SIC Codes in which Companies (Main Set) are Included

Hemisphere Media Group, Inc.	HMTV	4	48	483	4833	ICU Medical, Inc.	ICUI	3	38	384	3841
Hennessy Advisors, Inc.	HNNA	6	62	628		IDACORP, Inc.	IDA	4	49	491	
Henry Schein, Inc.	HSIC	5	50	504		IDEX Corporation	IEX	3	35		
Hercules Capital, Inc.	HTGC	6	67			IDEXX Laboratories, Inc.	IDXX	2	28	283	2835
Heritage Commerce Corp	HTBK	6	60	602		IDT Corporation	IDT	4	48	481	4813
Heritage Financial Corporation	HFWA	6	60	602		IEC Electronics Corp.	IEC	3	36	367	3672
Heritage Insurance Holdings, Inc.	HRTG	6	63	633		IES Holdings, Inc.	IESC	1			
Heritage-Crystal Clean, Inc	HCCI	4	49	495		IF Bancorp, Inc.	IROQ	6	60	603	6035
Herman Miller, Inc.	MLHR	2	25			II-VI Incorporated	IIVI	3	38	382	
Hersha Hospitality Trust	HT	6	67		6798	IKONICS Corporation	IKNX	2	28	284	
Heska Corporation	HSKA	2	28	283	2835	Illinois Tool Works Inc.	ITW	3			
Hexcel Corporation	HXL	2	28			Illumina, Inc.	ILMN	3	38	382	3826
Hibbett Sports, Inc.	HIBB	5	59	594		Impac Mortgage Holdings, Inc.	IMH	6	61	616	6162
Highwoods Properties, Inc.	HIW	6	67		6798	Income Opportunity Realty Investors, Inc.	IOR	6	61	616	6162
Hillenbrand, Inc.	HI	3				Independence Holding Company	IHC	6	63	632	
Hilltop Holdings Inc.	HTH	6				Independence Realty Trust, Inc.	IRT	6	67		6798
Hilton Worldwide Holdings Inc.	HLT	7	70			Independent Bank Corp.	INDB	6	60	602	
Hingham Institution for Savings	HIFS	6	60	603	6036	Independent Bank Corporation	IBCP	6	60	602	
HMN Financial, Inc.	HMNF	6	60	603	6035	Independent Bank Group, Inc.	IBTX	6	60	602	
HMS Holdings Corp.	HMSY	6	64			Information Services Group, Inc.	III	7	73	737	7374
HNI Corporation	HNI	2	25			Ingles Markets, Incorporated	IMKTA	5	54	541	5411
Holly Energy Partners, L.P.	HEP	4	46			Ingredion Incorporated	INGR	2	20		
HollyFrontier Corporation	HFC	2	29	291		Innophos Holdings, Inc.	IPHS	2	28	281	
Hologic, Inc.	HOLX	3	38	384		Innospec Inc.	IOSP	2	28		
Home Bancorp, Inc.	HBCP	6	60	603	6035	Innoviva, Inc.	INVA	2	28	283	2834
Home Bancshares, Inc. (Conway, AR)	HOMB	6	60	602		Inogen, Inc.	INGN	3	38	384	3845
Home Federal Bancorp, Inc. of Louisiana	HFBL	6	60	603	6035	Insight Enterprises, Inc.	NSIT	5	50	504	5045
HomeStreet, Inc.	HMST	6	60	602		Insignia Systems, Inc.	ISIG	7	73		
HomeTrust Bancshares, Inc.	HTBI	6	60	602		Insperty, Inc.	NSP	7	73	736	7363
Hooker Furniture Corporation	HOFT	2	25	251		Installed Building Products, Inc.	IBP	1			
Hope Bancorp, Inc.	HOPE	6	60	602		Insteel Industries, Inc.	IIIN	3	33	331	
Horace Mann Educators Corporation	HMN	6	63			Integer Holdings Corporation	ITGR	3	38	384	3845
Horizon Bancorp, Inc.	HBNC	6	60	602		Integra LifeSciences Holdings Corporation	IART	3	38	384	3842
Horizon Technology Finance Corporation	HRZN	6	67			Intel Corporation	INTC	3	36	367	3674
Hormel Foods Corporation	HRL	2	20	201		Intelligent Systems Corporation	INS	7	73	737	7372
Host Hotels & Resorts, Inc.	HST	6	67		6798	Inter Parfums, Inc.	IPAR	2	28	284	
Houston Wire & Cable Company	HWCC	5	50	506		Interactive Brokers Group, Inc.	IBKR	6	62	621	
Howard Bancorp, Inc.	HBMD	6	60	602		Intercontinental Exchange, Inc.	ICE	6	62		
HP Inc.	HPQ	3	35	357		InterDigital, Inc.	IDCC	6	67		6794
Hub Group, Inc.	HUBG	4	47	473		Interface, Inc.	TILE	2	22		
Hubbell Incorporated	HUBB	3				International Bancshares Corporation	IBOC	6	60	602	
Hudson Pacific Properties, Inc.	HPP	6	67		6798	International Business Machines Corporation	IBM	7	73	737	
Humana Inc.	HUM	6	63	632	6324	International Flavors & Fragrances Inc.	IFF	2	28		
Huntington Bancshares Incorporated	HBAN	6	60	602		International Paper Company	IP	2	26		
Huntington Ingalls Industries, Inc.	HII	3	37			inTEST Corporation	INTT	3	38	382	3825
Huntsman Corporation	HUN	2	28			IntriCon Corporation	IIN	3	38	384	3842
Hurco Companies, Inc.	HURC	3	38	382		Intuit Inc.	INTU	7	73	737	7372
Huron Consulting Group Inc.	HURN	8	87	874		Intuitive Surgical, Inc.	ISRG	3	38	384	3845
Huttig Building Products, Inc.	HBP	5	50			Invesco Mortgage Capital Inc.	IVR	6	67		6798
Hyatt Hotels Corporation	H	7	70			Investar Holding Corporation	ISTR	6	60	602	
Hyster-Yale Materials Handling, Inc.	HY	3	35	353		Investcorp Credit Management BDC, Inc.	ICMB	6	67		
IAC/InterActiveCorp	IAC	7	73	737		Investors Bancorp, Inc.	ISBC	6	60	603	6036
IBERIABANK Corporation	IBKC	6	60	602		Investors Title Company	ITIC	6	63		
ICF International, Inc.	ICFI	8	87	874		IPG Photonics Corporation	IPGP	3	36	367	3674



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Mack-Cali Realty Corporation	CLI	6	67	6798					
Mackinac Financial Corporation	MFNC	6	60	602					
Macy's, Inc.	M	5	53						
Magellan Health, Inc.	MGLN	8	87	874					
Magellan Midstream Partners, L.P.	MMP	4	46						
Magyar Bancorp, Inc.	MGYR	6	60	603	6036				
Main Street Capital Corporation	MAIN	6	67						
Malibu Boats, Inc.	MBUU	3	37						
Malvern Bancorp, Inc.	MLVF	6	60	602					
Manhattan Associates, Inc.	MANH	7	73	737	7373				
Manhattan Bridge Capital, Inc.	LOAN	6	67		6798				
Mannatech, Incorporated	MTEX	2	28	283	2834				
Manning & Napier, Inc.	MN	6	62	628					
ManpowerGroup Inc.	MAN	7	73	736	7363				
ManTech International Corporation	MANT	7	73	737	7373				
Marcus & Millichap, Inc.	MMI	6	65	653					
Marine Products Corporation	MPX	3	37						
MarineMax, Inc.	HZO	5	55						
MarketAxess Holdings Inc.	MKTX	6	62						
Marlin Business Services Corp.	MRLN	6	61						
Marriott International, Inc.	MAR	7	70						
Marriott Vacations Worldwide Corporation	VAC	7	70						
Marsh & McLennan Companies, Inc.	MMC	6	64						
Marten Transport, Ltd.	MRTN	4	42		4213				
Martin Marietta Materials, Inc.	MLM	1	14						
Masimo Corporation	MASI	3	38	384	3845				
MasTec, Inc.	MTZ	1	16						
Mastech Digital, Inc.	MHH	7	73	736	7361				
Mastercard Incorporated	MA	6	60						
Materion Corporation	MTRN	3	33						
Matrix Service Company	MTRX	1							
Matson, Inc.	MATX	4							
Maxim Integrated Products, Inc.	MXIM	3	36	367	3674				
MAXIMUS, Inc.	MMS	8	87	874					
McCormick & Company, Incorporated	MKC	2	20						
McDonald's Corporation	MCD	5	58		5812				
McGrath RentCorp	MGRC	7	73	735					
McKesson Corporation	MCK	5	51	512					
Medallion Financial Corp.	MFIN	6	61						
Medical Properties Trust, Inc.	MPW	6	67		6798				
Medifast, Inc.	MED	2	20						
MEDNAX, Inc.	MD	8	80						
MercadoLibre, Inc.	MELI	7	73	737					
Mercantile Bank Corporation	MBWM	6	60	602					
Mercer International Inc.	MERC	2	26						
Merck & Co., Inc.	MRK	2	28	283	2834				
Mercury General Corporation	MCY	6	63	633					
Mercury Systems, Inc.	MRCY	3	36	367	3674				
Meridian Bancorp, Inc.	EBSB	6	60	603	6036				
Meridian Bioscience, Inc.	VIVO	2	28	283					
Merit Medical Systems, Inc.	MMSI	3	38	384	3841				
Meritage Homes Corporation	MTH	1	15						
Meritor, Inc.	MTOR	3	37	371	3714				
Mesa Laboratories, Inc.	MLAB	3	38						
Mesa Royalty Trust	MTR	6	67						
Mesabi Trust	MSB	6	67						
Meta Financial Group, Inc.	CASH	6	60	603	6035				
Methode Electronics, Inc.	MEI	3	36	367					
MetLife, Inc.	MET	6	63	631					
Mettler-Toledo International Inc.	MTD	3	38	382	3826				
MFA Financial, Inc.	MFA	6	67		6798				
MGE Energy, Inc.	MGEE	4	49						
MGIC Investment Corporation	MTG	6	63						
MGM Resorts International	MGM	7	79	799					
MGP Ingredients, Inc.	MGPI	2	20	208					
Microchip Technology Incorporated	MCHP	3	36	367	3674				
Micron Technology, Inc.	MU	3	36	367	3674				
Microsoft Corporation	MSFT	7	73	737					
MicroStrategy Incorporated	MSTR	7	73	737	7372				
Mid Penn Bancorp, Inc.	MPB	6	60	602					
Mid-America Apartment Communities, Inc.	MAA	6	67		6798				
Middlefield Banc Corp.	MBCN	6	60	602					
Middlesex Water Company	MSEX	4	49	494					
MidWestOne Financial Group, Inc.	MOFG	6	60	602					
Miller Industries, Inc.	MLR	3	37	371					
Mitek Systems, Inc.	MITK	3	35	357	3577				
MKS Instruments, Inc.	MKSI	3							
Mobile Mini, Inc.	MINI	7	73	735					
Modine Manufacturing Company	MOD	3	37	371	3714				
Moelis & Company	MC	6	62	628					
Mohawk Industries, Inc.	MHK	2	22						
Molina Healthcare, Inc.	MOH	6	63	632	6324				
Molson Coors Beverage Company	TAP	2	20	208					
Monarch Casino & Resort, Inc.	MCRI	7	79	799					
Mondelez International, Inc.	MDLZ	2	20						
Monmouth Real Estate Investment Corporation	MNR	6	67		6798				
Monolithic Power Systems, Inc.	MPWR	3	36	367	3674				
Monro, Inc.	MNRO	7							
Monroe Capital Corporation	MRCC	6	67						
Monster Beverage Corporation	MNST	2	20	208					
Moody's Corporation	MCO	7	73						
Moog Inc.	MOG.A	3							
Morgan Stanley	MS	6	62						
Morningstar, Inc.	MORN	7	73	737					
Motorcar Parts of America, Inc.	MPAA	3	36	369					
Movado Group, Inc.	MOV	3	38						
MPLX LP	MPLX	4	46						
Mr. Cooper Group Inc.	COOP	6	61	616	6162				
MSA Safety Incorporated	MSA	3	38	384	3842				
MSC Industrial Direct Co., Inc.	MSM	5	50						
MSCI Inc.	MSCI	6	62	628					
MSG Networks Inc.	MSGN	4	48						
MTS Systems Corporation	MTSC	3	38	382					
Mueller Industries, Inc.	MLI	3	33						
Mueller Water Products, Inc.	MWA	3	34	349					
Murphy USA Inc.	MUSA	5	55						
MutualFirst Financial, Inc.	MFSF	6	60	602					
MVB Financial Corp.	MVBF	6	60	602					
MYR Group Inc.	MYRG	1	16						
Myriad Genetics, Inc.	MYGN	2	28	283	2835				
Napco Security Technologies,	NSSC	3	36	366					

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Inc.						Trust				
National Bank Holdings Corporation	NBHC	6	60	602		Northeast Bank	NBN	6	60	602
National Bankshares, Inc.	NKSH	6	60	602		Northern Trust Corporation	NTRS	6	60	602
National Beverage Corp.	FIZZ	2	20	208		Northfield Bancorp, Inc. (Staten Island, NY)	NFBK	6	60	603 6035
National General Holdings Corp.	NGHC	6	63	633		Northrim BanCorp, Inc.	NRIM	6	60	602
National Health Investors, Inc.	NHI	6	67		6798	Northrop Grumman Corporation	NOC	3		
National HealthCare Corporation	NHC	8	80			Northwest Bancshares, Inc.	NWBI	6	60	603 6035
National Instruments Corporation	NATI	7	73	737	7372	Northwest Natural Holding Company	NWN	4	49	492 4924
National Presto Industries, Inc.	NPK	3				NorthWestern Corporation	NWE	4	49	493 4931
National Research Corporation	NRC	7	73	738		NortonLifeLock Inc.	NLOK	7	73	737 7372
National Retail Properties, Inc.	NNN	6	67		6798	Norwood Financial Corp.	NWFL	6	60	602
National Western Life Group, Inc.	NWLI	6	63	631		Nova LifeStyle, Inc.	NVfy	2	25	251
Natural Alternatives International, Inc.	NAII	2	28	283	2834	Nu Skin Enterprises, Inc.	NUS	2	28	283 2834
Natural Gas Services Group, Inc.	NGS	7				Nucor Corporation	NUE	3		
Natural Grocers by Vitamin Cottage, Inc.	NGVC	5	54			NuVasive, Inc.	NUVA	3	38	384 3841
Natural Health Trends Corp.	NHTC	5	51	512		NV5 Global, Inc.	NVEE	8	87	
Nature's Sunshine Products, Inc.	NATR	2	28	283	2834	NVE Corporation	NVEC	3	36	367 3674
Natus Medical Incorporated	NTUS	3	38	384	3845	NVIDIA Corporation	NVDA	3	36	367 3674
Nautilus, Inc.	NLS	3	39			NVR, Inc.	NVR	1	15	
NBT Bancorp Inc.	NBTB	6	60	602		Oak Valley Bancorp	OVLY	6	60	602
Neenah, Inc.	NP	2	26	262		Oaktree Strategic Income Corporation	OCSI	6	67	
Nektar Therapeutics	NKTR	2	28	283	2834	Oasis Petroleum Inc.	OAS	1	13	131
Nelnet, Inc.	NNI	6	61	614		Ocean Bio-Chem, Inc.	OBCI	2	28	284
Neogen Corporation	NEOG	2	28	283		OceanFirst Financial Corp.	OCFC	6	60	603 6035
Net 1 UEPS Technologies, Inc.	UEPS	7	73	737	7374	Oconee Federal Financial Corp.	OFED	6	60	603 6035
NetApp, Inc.	NTAP	3	35	357		Office Depot, Inc.	ODP	5		
Netflix, Inc.	NFLX	7				OFG Bancorp	OFG	6	60	602
NETGEAR, Inc.	NTGR	3	35	357		OFS Capital Corporation	OFS	6	67	
NetScout Systems, Inc.	NTCT	7	73	737	7373	OGE Energy Corp.	OGE	4	49	493 4931
NetSol Technologies, Inc.	NTWK	7	73	737	7372	Ohio Valley Banc Corp.	OVBC	6	60	602
Network-1 Technologies, Inc.	NTIP	6	67		6794	O-I Glass, Inc.	OI	3	32	
New Jersey Resources Corporation	NJR	4	49	492	4924	Oil-Dri Corporation of America	ODC	3	32	
New Mountain Finance Corporation	NMFC	6	67			Old Dominion Freight Line, Inc.	ODFL	4	42	4213
New Residential Investment Corp.	NRZ	6	67		6798	Old National Bancorp	ONB	6	60	602
New York Community Bancorp, Inc.	NYCB	6	60	603	6036	Old Point Financial Corporation	OPOF	6	60	602
NewMarket Corporation	NEU	2	28	286		Old Republic International Corporation	ORI	6	63	
Newmont Corporation	NEM	1				Old Second Bancorp, Inc.	OSBC	6	60	602
Newtek Business Services Corp.	NEWT	6	67			Olin Corporation	OLN	2	28	
Nexstar Media Group, Inc.	NXST	4	48	483	4833	Olympic Steel, Inc.	ZEUS	5	50	
NextEra Energy Partners, LP	NEP	4	49	491		Omega Flex, Inc.	OFLX	3	34	349
NextEra Energy, Inc.	NEE	4	49	491		Omega Healthcare Investors, Inc.	OHI	6	67	6798
NextGen Healthcare, Inc.	NXGN	7	73	737	7372	Omicell, Inc.	OMCL	7	73	737 7373
NIC Inc.	EGOV	7	73	737		Omicom Group Inc.	OMC	7	73	
Nicolet Bankshares, Inc.	NCBS	6	60	602		ON Semiconductor Corporation	ON	3	36	367 3674
NIKE, Inc.	NKE	3	30			ONE Gas, Inc.	OGS	4	49	492 4924
NiSource Inc.	NI	4	49			One Liberty Properties, Inc.	OLP	6	67	6798
NMI Holdings, Inc.	NMIH	6	63			OneMain Holdings, Inc.	OMF	6	61	614
Nordson Corporation	NDSN	3	35	356		ONEOK, Inc.	OKE	4	49	492
Nordstrom, Inc.	JWN	5	56	565		OneSpan Inc.	OSPN	3	36	366
Norfolk Southern Corporation	NSC	4				Onto Innovation Inc.	ONTO	3	38	382
North European Oil Royalty	NRT	6	67			Oppenheimer Holdings Inc.	OPY	6	62	621
						OptimumBank Holdings, Inc.	OPHC	6	60	602
						Opus Bank	OPB	6	60	602
						Oracle Corporation	ORCL	7	73	737
						OraSure Technologies, Inc.	OSUR	2	28	283 2835
						O'Reilly Automotive, Inc.	ORLY	5	55	

Appendix B: SIC Codes in which Companies (Main Set) are Included

Orrstown Financial Services, Inc.	ORRF	6	60	602					
Orthofix Medical Inc.	OFIX	3	38	384					
Oshkosh Corporation	OSK	3							
OSI Systems, Inc.	OSIS	3	38	384					
Otelco Inc.	OTEL	4	48	481	4813				
Ottawa Bancorp, Inc.	OTTW	6	60	603	6035				
Outfront Media Inc.	OUT	6	67		6798				
Owens Corning	OC	3	32						
Oxford Industries, Inc.	OXM	2	23						
Oxford Lane Capital Corp.	OXLC	6	61						
Oxford Square Capital Corp.	OXSQ	6	67						
P. H. Glatfelter Company	GLT	2	26	262					
P.A.M. Transportation Services, Inc.	PTSI	4	42		4213				
PACCAR Inc	PCAR	3	37	371					
Pacific Mercantile Bancorp	PMBC	6	60	602					
Pacific Premier Bancorp, Inc.	PPBI	6	60	602					
Packaging Corporation of America	PKG	2	26	265					
PacWest Bancorp	PACW	6	60	602					
Papa John's International, Inc.	PZZA	5	58		5812				
Paramount Group, Inc.	PGRE	6	67		6798				
Park City Group, Inc.	PCYG	7	73	737	7372				
Park National Corporation	PRK	6	60	602					
Parke Bancorp, Inc.	PKBK	6	60	602					
Parker-Hannifin Corporation	PH	3	34	349					
Parsley Energy, Inc.	PE	1	13	131					
Pathfinder Bancorp, Inc.	PBHC	6	60	602					
Patrick Industries, Inc.	PATK	2	24						
Patriot National Bancorp, Inc.	PNBK	6	60	602					
Pattern Energy Group Inc.	PEGI	4	49						
Patterson Companies, Inc.	PDCO	5	50	504					
Paychex, Inc.	PAYX	8	87						
Paycom Software, Inc.	PAYC	7	73	737					
Paylocity Holding Corporation	PCTY	7	73	737					
PB Bancorp, Inc.	PBBI	6	60	603	6035				
PBF Energy Inc.	PBF	2	29	291					
PBF Logistics LP	PBFX	4	46						
PC Connection, Inc.	CNXN	5	59						
PCB Bancorp	PCB	6	60	602					
PDF Solutions, Inc.	PDFS	3	35	355	3559				
Peapack-Gladstone Financial Corporation	PGC	6	60	602					
Pebblebrook Hotel Trust	PEB	6	67		6798				
Pegasystems Inc.	PEGA	7	73	737	7372				
Penn National Gaming, Inc.	PENN	7	79	799					
PennantPark Floating Rate Capital Ltd.	PFLT	6	67						
PennantPark Investment Corporation	PNNT	6	67						
Penns Woods Bancorp, Inc.	PWOD	6	60	602					
PennyMac Financial Services, Inc.	PFSI	6	61	616	6162				
PennyMac Mortgage Investment Trust	PMT	6	67		6798				
Penske Automotive Group, Inc.	PAG	5	55						
Peoples Bancorp Inc.	PEBO	6	60	602					
Peoples Bancorp of North Carolina, Inc.	PEBK	6	60	602					
Peoples Financial Services Corp.	PFIS	6	60	602					
People's United Financial, Inc.	PBCT	6	60	602					
PepsiCo, Inc.	PEP	2	20	208					
Perficient, Inc.	PRFT	7	73	737					
PerkinElmer, Inc.	PKI	3	38						
Permian Basin Royalty Trust	PBT	6	67						
PetMed Express, Inc.	PETS	5	59						
Pfizer Inc.	PFE	2	28	283	2834				
PGT Innovations, Inc.	PGTI	3	34						
Phibro Animal Health Corporation	PAHC	2	28	283					
Phillips 66	PSX	2	29	291					
Phillips 66 Partners LP	PSXP	4	46						
Photronics, Inc.	PLAB	3	36	367	3674				
Physicians Realty Trust	DOC	6	67		6798				
Piedmont Office Realty Trust, Inc.	PDM	6	67		6798				
Pilgrim's Pride Corporation	PPC	2	20	201					
Pinnacle Financial Partners, Inc.	PNFP	6	60	602					
Pinnacle West Capital Corporation	PNW	4	49	491					
Pioneer Natural Resources Company	PXD	1	13	131					
Piper Sandler Companies	PIPR	6	62	621					
Plains All American Pipeline, L.P.	PAA	5	51	517					
Plantronics, Inc.	PLT	3	36	366					
Plexus Corp.	PLXS	3	36	367	3672				
Plumas Bancorp	PLBC	6	60	602					
PNM Resources, Inc.	PNM	4	49	491					
Polaris Inc.	PII	3	37						
Pool Corporation	POOL	5	50						
Popular, Inc.	BPOP	6	60	602					
Portland General Electric Company	POR	4	49	491					
Potbelly Corporation	PBPB	5	58		5812				
Powell Industries, Inc.	POWL	3	36						
Power Integrations, Inc.	POWI	3	36	367	3674				
PPG Industries, Inc.	PPG	2	28						
PPL Corporation	PPL	4	49	491					
PRA Group, Inc.	PRAA	6	61						
PRA Health Sciences, Inc.	PRAH	8	87						
Preferred Bank	PFBC	6	60	602					
Preformed Line Products Company	PLPC	3	36						
Premier Financial Bancorp, Inc.	PFBI	6	60	602					
Prestige Consumer Healthcare Inc.	PBH	5	51	512					
PRGX Global, Inc.	PRGX	8	87						
PriceSmart, Inc.	PSMT	5	53	533					
PrimeEnergy Resources Corporation	PNRG	1	13	131					
Primerica, Inc.	PRI	6							
Primoris Services Corporation	PRIM	1	16						
Principal Financial Group, Inc.	PFG	6	62	628					
ProAssurance Corporation	PRA	6	63	633					
Pro-Dex, Inc.	PDEX	3	38	384	3841				
Progress Software Corporation	PRGS	7	73	737					
Prologis, Inc.	PLD	6	67		6798				
Prospect Capital Corporation	PSEC	6	67						
Prosperity Bancshares, Inc.	PB	6	60	602					
Protective Insurance Corp	PTVCB	6	63	633					
Proto Labs, Inc.	PRLB	3	35	355	3559				
Provident Financial Holdings, Inc.	PROV	6	60	603	6035				

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Provident Financial Services, Inc.	PFS	6	60	603	6036	ResMed Inc.	RMD	3	38	384	3845
Prudential Bancorp, Inc.	PBIP	6	60	603	6036	Resources Connection, Inc.	RECN	8	87		
Prudential Financial, Inc.	PRU	6	63	631		Retail Opportunity Investments Corp.	ROIC	6	67		6798
PS Business Parks, Inc.	PSB	6	67		6798	Retail Properties of America, Inc.	RPAI	6	67		6798
Psychemedics Corporation	PMD	8	80			REX American Resources Corporation	REX	2	28	286	
PTC Inc.	PTC	7	73	737	7372	Rexford Industrial Realty, Inc.	REXR	6	67		6798
Public Service Enterprise Group Incorporated	PEG	4	49	493	4931	Rexnord Corporation	RXN	3	35	356	
Public Storage	PSA	6	67		6798	RF Industries, Ltd.	RFIL	3	36	367	
PulteGroup, Inc.	PHM	1	15			RGC Resources, Inc.	RGCO	4	49	492	4924
PVH Corp.	PVH	2	23			RH	RH	5	57		
Pzena Investment Management, Inc.	PZN	6	62	628		Riverview Bancorp, Inc.	RVSB	6	60	603	6035
QAD Inc.	QADA	7	73	737		Riverview Financial Corporation	RIVE	6	60	602	
QCR Holdings, Inc.	QCRH	6	60	602		RLI Corp.	RLI	6	63	633	
Qorvo, Inc.	QRVO	3	36	367	3674	RLJ Lodging Trust	RLJ	6	67		6798
QTS Realty Trust, Inc.	QTS	6	67		6798	Robert Half International Inc.	RHI	7	73	736	
Quaker Chemical Corporation	KWR	2	29			Rockwell Automation, Inc.	ROK	3			
QUALCOMM Incorporated	QCOM	3	36			Rocky Brands, Inc.	RCKY	3	31		
Qualys, Inc.	QLYS	7	73	737	7372	Rogers Corporation	ROG	3			
Quanex Building Products Corporation	NX	3	34			Rollins, Inc.	ROL	7	73		
Quanta Services, Inc.	PWR	1				Roper Technologies, Inc.	ROP	3	38		
Quest Diagnostics Incorporated	DGX	8	80			Ross Stores, Inc.	ROST	5	56	565	
Quidel Corporation	QDEL	2	28	283	2835	Royal Gold, Inc.	RGLD	6	67		
Qurate Retail Inc	QRTEA	5	59			RPC, Inc.	RES	1	13		
Radian Group Inc.	RDN	6	63			RPM International Inc.	RPM	2	28		
Radiant Logistics, Inc.	RLGT	4	47	473		RPT Realty	RPT	6	67		6798
RadNet, Inc.	RDNT	8	80			Rush Enterprises, Inc.	RUSHA	5	55		
Ralph Lauren Corporation	RL	2	23			Ruth's Hospitality Group, Inc.	RUTH	5	58		5812
Rambus Inc.	RMBS	6	67		6794	Ryerson Holding Corporation	RYI	5	50		
Rand Capital Corporation	RAND	6	67			Ryman Hospitality Properties, Inc.	RHP	6	67		6798
Raven Industries, Inc.	RAVN	3				S&P Global Inc.	SPGI	7	73		
Raymond James Financial, Inc.	RJF	6	62	621		S&T Bancorp, Inc.	STBA	6	60	602	
Rayonier Inc.	RYN	6	67		6798	Sabine Royalty Trust	SBR	6	67		
Raytheon Company	RTN	3				Sabra Health Care REIT, Inc.	SBRA	6	67		6798
RBC Bearings Incorporated	ROLL	3	35	356		Sabre Corporation	SABR	7	73	737	
RCI Hospitality Holdings, Inc.	RICK	5	58			Safety Insurance Group, Inc.	SAFT	6	63	633	
RCM Technologies, Inc.	RCMT	7	73	736		Saga Communications, Inc.	SGA	4	48	483	4832
RE/MAX Holdings, Inc.	RMAX	6	65	653		Saia, Inc.	SAIA	4	42		4213
Reading International, Inc.	RDI	7				salesforce.com, inc.	CRM	7	73	737	7372
Realty Holdings Corp.	RLGY	6	65	653		Salisbury Bancorp, Inc.	SAL	6	60	602	
RealPage, Inc.	RP	7	73	737	7372	Sally Beauty Holdings, Inc.	SBH	5			
Realty Income Corporation	O	6	67		6798	San Juan Basin Royalty Trust	SJT	6	67		
Red Robin Gourmet Burgers, Inc.	RRGB	5	58		5812	Sanderson Farms, Inc.	SAFM	2	20	201	
Regal Beloit Corporation	RBC	3	36	362	3621	Sandy Spring Bancorp, Inc.	SASR	6	60	602	
Regency Centers Corporation	REG	6	67		6798	Sanmina Corporation	SANM	3	36	367	3672
Regeneron Pharmaceuticals, Inc.	REGN	2	28	283	2834	Santander Consumer USA Holdings Inc.	SC	6	61	614	
Regional Management Corp.	RM	6	61	614		Saul Centers, Inc.	BFS	6	67		6798
Regions Financial Corporation	RF	6	60	602		SB Financial Group, Inc.	SBFG	6	60	602	
Reinsurance Group of America, Incorporated	RGA	6	63	631		SB One Bancorp	SBBX	6	60	602	
Reliance Steel & Aluminum Co.	RS	5	50			ScanSource, Inc.	SCSC	5	50		
Renasant Corporation	RNST	6	60	602		Schnitzer Steel Industries, Inc.	SCHN	5	50		
Renewable Energy Group, Inc.	REGI	2	29			Scholastic Corporation	SCHL	2	27		
Repligen Corporation	RGEN	2	28	283	2836	Schweitzer-Mauduit International, Inc.	SWM	2			
Republic Bancorp, Inc.	RBCAA	6	60	602		Science Applications International Corporation	SAIC	7	73	737	7373
Republic First Bancorp, Inc.	FRBK	6	60	602		Seacoast Banking Corporation of Florida	SBCF	6	60	602	
Republic Services, Inc.	RSG	4	49	495							

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Sealed Air Corporation	SEE	3	30	308						
Security National Financial Corporation	SNFCA	6								
SEI Investments Company	SEIC	6	62	628						
Select Bancorp, Inc.	SLCT	6	60	602						
Select Medical Holdings Corporation	SEM	8	80							
Selective Insurance Group, Inc.	SIGI	6	63	633						
Sempra Energy	SRE	4	49	493	4931					
Semtech Corporation	SMTC	3	36	367	3674					
Seneca Foods Corporation	SENEA	2	20	203						
Sensient Technologies Corporation	SXT	2	28	286						
Service Properties Trust	SVC	6	67		6798					
ServiceMaster Global Holdings, Inc.	SERV	7								
ServisFirst Bancshares, Inc.	SFBS	6	60	602						
Servotronics, Inc.	SVT	3	36	362	3621					
Severn Bancorp, Inc.	SVBI	6	60	603	6035					
Shell Midstream Partners, L.P.	SHLX	4	46							
Shenandoah Telecommunications Company	SHEN	4	48	481						
Shiloh Industries, Inc.	SHLO	3	34							
Shoe Carnival, Inc.	SCVL	5	56							
Shore Bancshares, Inc.	SHBI	6	60	602						
Shutterstock, Inc.	SSTK	7	73	737						
Sierra Bancorp	BSRR	6	60	602						
SIGA Technologies, Inc.	SIGA	2	28	283	2836					
SigmaTron International, Inc.	SGMA	3	36	367	3672					
Signature Bank	SBNY	6	60	602						
Silgan Holdings Inc.	SLGN	3	34							
Silicon Laboratories Inc.	SLAB	3	36	367	3674					
Silvercrest Asset Management Group Inc.	SAMG	6	62	628						
SilverSun Technologies, Inc.	SSNT	7	73	737						
Simmons First National Corporation	SFNC	6	60	602						
Simon Property Group, Inc.	SPG	6	67		6798					
Simpson Manufacturing Co., Inc.	SSD	3	34	342						
Sinclair Broadcast Group, Inc.	SBGI	4	48	483	4833					
Sirius XM Holdings Inc.	SIRI	4	48	483	4832					
Six Flags Entertainment Corporation	SIX	7	79	799						
SJW Group	SJW	4	49	494						
Skechers U.S.A., Inc.	SKX	3	31							
SkyWest, Inc.	SKYW	4	45	451						
Skyworks Solutions, Inc.	SWKS	3	36	367	3674					
SL Green Realty Corp.	SLG	6	67		6798					
Sleep Number Corporation	SNBR	2	25	251						
SLM Corporation	SLM	6	61	614						
Snap-on Incorporated	SNA	3								
Socket Mobile, Inc.	SCKT	3	36	366	3663					
Solar Capital Ltd.	SLRC	6	67							
Solar Senior Capital Ltd.	SUNS	6	67							
Sonic Automotive, Inc.	SAH	5	55							
Sonoco Products Company	SON	2	26	265						
SORL Auto Parts, Inc.	SORL	3	37	371	3714					
Sound Financial Bancorp, Inc.	SFBC	6	60	603	6035					
South State Corporation	SSB	6	60	602						
Southern Copper Corporation	SCCO	1								
Southern First Bancshares, Inc.	SFST	6	60	602						
Southern Missouri Bancorp, Inc.	SMBC	6	60	603	6036					
Southern National Bancorp of Virginia, Inc.	SONA	6	60	602						
Southside Bancshares, Inc.	SBSI	6	60	602						
Southwest Airlines Co.	LUV	4	45	451						
Southwest Georgia Financial Corporation	SGB	6	60	602						
SP Plus Corporation	SP	7								
SPAR Group, Inc.	SGRP	7	73	738						
Spark Energy, Inc.	SPKE	4	49	493	4931					
Spartan Motors, Inc.	SPAR	3	37	371						
SpartanNash Company	SPTN	5	51							
Spire Inc.	SR	4	49	492	4924					
Spirit AeroSystems Holdings, Inc.	SPR	3	37							
Spirit Airlines, Inc.	SAVE	4	45	451						
Spirit Realty Capital, Inc.	SRC	6	67		6798					
Spok Holdings, Inc.	SPOK	4	48	481	4812					
Sportsman's Warehouse Holdings, Inc.	SPWH	5	59	594						
Sprague Resources LP	SRLP	5	51	517						
Sprouts Farmers Market, Inc.	SFM	5	54	541	5411					
SPS Commerce, Inc.	SPSC	7	73	737						
SPX Corporation	SPXC	3								
SS&C Technologies Holdings, Inc.	SSNC	7	73	737	7372					
STAG Industrial, Inc.	STAG	6	67		6798					
Stamps.com Inc.	STMP	7	73	737						
Standard Motor Products, Inc.	SMP	3								
Standex International Corporation	SXI	3								
Stanley Black & Decker, Inc.	SWK	3								
Star Group, L.P.	SGU	5	59							
Starbucks Corporation	SBUX	5	58		5812					
Starwood Property Trust, Inc.	STWD	6	67		6798					
State Auto Financial Corporation	STFC	6	63							
State Street Corporation	STT	6	60	602						
Steel Dynamics, Inc.	STLD	3	33	331						
Stellus Capital Investment Corporation	SCM	6	67							
Stepan Company	SCL	2	28							
Stericycle, Inc.	SRCL	4	49	495						
Steven Madden, Ltd.	SHOO	3	31							
Stewart Information Services Corporation	STC	6	63							
Stifel Financial Corp.	SF	6	62	621						
Stock Yards Bancorp, Inc.	SYBT	6	60	602						
StoneCastle Financial Corp.	BANX	6	67							
Stoneridge, Inc.	SRI	3	36	367						
STORE Capital Corporation	STOR	6	67		6798					
Strategic Education, Inc.	STRA	8	82							
Strattec Security Corporation	STRT	3	37	371	3714					
Stryker Corporation	SYK	3	38	384						
Sturm, Ruger & Company, Inc.	RGR	3	34							
Suburban Propane Partners, L.P.	SPH	5	59							
Summit Financial Group, Inc.	SMMF	6	60	602						
Summit Hotel Properties, Inc.	INN	6	67		6798					
Summit State Bank	SSBI	6	60	602						
Sun Communities, Inc.	SUI	6	67		6798					
SunCoke Energy, Inc.	SXC	3	33	331						

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Sunoco LP	SUN	5	51	517					
Sunstone Hotel Investors, Inc.	SHO	6	67		6798				
Supernus Pharmaceuticals, Inc.	SUPN	2	28	283	2834				
SVB Financial Group	SIVB	6	60	602					
Sykes Enterprises, Incorporated	SYKE	7	73	737	7374				
Synalloy Corporation	SYNL	3	33	331					
Synaptics Incorporated	SYNA	3	36	367	3674				
Synchrony Financial	SYF	6	61	614					
Syneos Health, Inc.	SYNH	8	87						
SYNNEX Corporation	SNX	5	50	504	5045				
Synopsys, Inc.	SNPS	7	73	737	7372				
Synovus Financial Corp.	SNV	6	60	602					
Sysco Corporation	SYV	5	51						
Systemax Inc.	SYX	5	50						
T. Rowe Price Group, Inc.	TROW	6	62	628					
Take-Two Interactive Software, Inc.	TTWO	7	73	737	7372				
Tandy Leather Factory, Inc.	TLF	5	59						
Tanger Factory Outlet Centers, Inc.	SKT	6	67		6798				
Tapestry, Inc.	TPR	3	31						
Target Corporation	TGT	5	53	533					
Taubman Centers, Inc.	TCO	6	67		6798				
Taylor Devices, Inc.	TAYD	3	35	356					
Taylor Morrison Home Corporation	TMHC	1	15						
TC PipeLines, LP	TCP	6	67						
TCF Financial Corporation	TCF	6	60	602					
TD Ameritrade Holding Corporation	AMTD	6	62	621					
Tech Data Corporation	TECD	5	50	504	5045				
TechTarget, Inc.	TTGT	7	73	737					
TEGNA Inc.	TGNA	4	48	483	4833				
Teledyne Technologies Incorporated	TDY	3	38						
Teleflex Incorporated	TFX	3	38	384	3841				
Telephone and Data Systems, Inc.	TDS	4	48	481					
Tempur Sealy International, Inc.	TPX	2	25	251					
Tennant Company	TNC	3	35						
Teradata Corporation	TDC	7	73	737					
Teradyne, Inc.	TER	3	38	382	3825				
Terex Corporation	TEX	3	35	353					
Terreno Realty Corporation	TRNO	6	67		6798				
Territorial Bancorp Inc.	TBNK	6	60	603	6035				
TESSCO Technologies Incorporated	TESS	5	50	506					
Tetra Tech, Inc.	TTEK	8	87						
Texas Capital Bancshares, Inc.	TCBI	6	60	602					
Texas Instruments Incorporated	TXN	3	36	367	3674				
Texas Pacific Land Trust	TPL	6	67						
Texas Roadhouse, Inc.	TXRH	5	58		5812				
Textron Inc.	TXT	3	37						
TFS Financial Corporation	TFSL	6	60	603	6035				
The AES Corporation	AES	4	49						
The Allstate Corporation	ALL	6	63	633					
The Bancorp, Inc.	TBBK	6	60	602					
The Bank of New York Mellon Corporation	BK	6	60	602					
The Blackstone Group Inc.	BX	6	62	628					
The Boeing Company	BA	3	37						
The Boston Beer Company, Inc.	SAM	2	20	208					
The Buckle, Inc.	BKE	5	56	565					
The Carlyle Group Inc.	CG	6	62	628					
The Cato Corporation	CATO	5	56						
The Charles Schwab Corporation	SCHW	6	62	628					
The Cheesecake Factory Incorporated	CAKE	5	58					5812	
The Chefs' Warehouse, Inc.	CHEF	5	51						
The Children's Place, Inc.	PLCE	5	56						
The Clorox Company	CLX	2	28	284					
The Coca-Cola Company	KO	2	20	208					
The Community Financial Corporation	TCFC	6	60	602					
The Cooper Companies, Inc.	COO	3	38						
The E.W. Scripps Company	SSP	4	48	483	4833				
The Eastern Company	EML	3	34	342					
The Ensign Group, Inc.	ENSG	8	80						
The Estée Lauder Companies Inc.	EL	2	28	284					
The First Bancorp, Inc.	FNLC	6	60	602					
The First Bancshares, Inc.	FBMS	6	60	602					
The First of Long Island Corporation	FLIC	6	60	602					
The Gap, Inc.	GPS	5	56	565					
The GEO Group, Inc.	GEO	6	67		6798				
The Goldfield Corporation	GV	1	16						
The Goldman Sachs Group, Inc.	GS	6	62	621					
The Goodyear Tire & Rubber Company	GT	3	30						
The Gorman-Rupp Company	GRC	3	35	356					
The Greenbrier Companies, Inc.	GBX	3	37						
The Habit Restaurants, Inc.	HABT	5	58					5812	
The Hackett Group, Inc.	HCKT	8	87	874					
The Hain Celestial Group, Inc.	HAIN	2	20						
The Hanover Insurance Group, Inc.	THG	6	63	633					
The Hartford Financial Services Group, Inc.	HIG	6	63	633					
The Hershey Company	HSY	2	20						
The Home Depot, Inc.	HD	5							
The Howard Hughes Corporation	HHC	6	65						
The Interpublic Group of Companies, Inc.	IPG	7	73						
The J. M. Smucker Company	SJM	2	20	203					
The Kroger Co.	KR	5	54	541	5411				
The Liberty SiriusXM Group	LSXMK	4	48	483	4832				
The Macerich Company	MAC	6	67		6798				
The Middleby Corporation	MIDD	3	35						
The Mosaic Company	MOS	2	28	287					
The National Security Group, Inc.	NSEC	6	63	633					
The New York Times Company	NYT	2	27						
The PNC Financial Services Group, Inc.	PNC	6	60	602					
The Procter & Gamble Company	PG	2							
The Progressive Corporation	PGR	6	63	633					
The Providence Service Corporation	PRSC	4							
The Scotts Miracle-Gro Company	SMG	2	28	287					
The Sherwin-Williams	SHW	2	28						

Appendix B: SIC Codes in which Companies (Main Set) are Included

Company					U.S. Bancorp	USB	6	60	602				
The Southern Company	SO	4	49	491	U.S. Concrete, Inc.	USCR	3	32					
The Timken Company	TKR	3	35	356	U.S. Physical Therapy, Inc.	USPH	8	80					
The TJX Companies, Inc.	TJX	5	56	565	U.S. Silica Holdings, Inc.	SLCA	1	14					
The Toro Company	TTC	3	35		Ubiquiti Inc.	UI	3	36	366	3663			
The Travelers Companies, Inc.	TRV	6	63	633	UDR, Inc.	UDR	6	67			6798		
The Wendy's Company	WEN	5	58	5812	UFP Technologies, Inc.	UFPT	3	30	308				
The Western Union Company	WU	6	60		UGI Corporation	UGI	4	49	493				
The Williams Companies, Inc.	WMB	4	49	492	Ultra Beauty, Inc.	ULTA	5	59					
The York Water Company	YORW	4	49	494	Ultra Clean Holdings, Inc.	UCTT	3	36	367	3674			
Thermo Fisher Scientific Inc.	TMO	3	38	382	Ultralife Corporation	ULBI	3	36	369				
Thermon Group Holdings, Inc.	THR	3	36	369	UMB Financial Corporation	UMBF	6	60	602				
THL Credit, Inc.	TCRD	6	67		Umpqua Holdings Corporation	UMPQ	6	60	602				
Thor Industries, Inc.	THO	3	37		Under Armour, Inc.	UAA	2	23					
Tiffany & Co.	TIF	5	59	594	Unifi, Inc.	UFI	2	22					
Tilly's, Inc.	TLYS	5	56		UniFirst Corporation	UNF	2	23					
Timberland Bancorp, Inc.	TSBK	6	60	603	Union Bankshares, Inc.	UNB	6	60	602				
Tiptree Inc.	TIPT	6	63	633	Union Pacific Corporation	UNP	4						
Tivity Health, Inc.	TVTY	8	80	809	United Airlines Holdings, Inc.	UAL	4	45	451				
T-Mobile US, Inc.	TMUS	4	48	481	United Bancorp, Inc.	UBCP	6	60	602				
Toll Brothers, Inc.	TOL	1	15		United Bancshares, Inc.	UBOH	6	60	602				
Tompkins Financial Corporation	TMP	6	60	602	United Bankshares, Inc.	UBSI	6	60	602				
Tootsie Roll Industries, Inc.	TR	2	20		United Community Banks, Inc.	UCBI	6	60	602				
TowneBank	TOWN	6	60	602	United Community Financial Corp.	UCFC	6	60	603	6036			
Townsquare Media, Inc.	TSQ	4	48	483	United Fire Group, Inc.	UFCS	6	63	633				
TPG Specialty Lending, Inc.	TSLX	6	67		United Insurance Holdings Corp.	UIHC	6	63	633				
Tractor Supply Company	TSCO	5			United Parcel Service, Inc.	UPS	4	42					
TransAct Technologies Incorporated	TACT	3	35	357	United Rentals, Inc.	URI	7	73	735				
Transcontinental Realty Investors, Inc.	TCI	6	65	651	United Security Bancshares	UBFO	6	60	602				
TravelCenters of America Inc.	TA	5	55		United States Cellular Corporation	USM	4	48	481	4812			
Travelzoo	TZOO	7	73	737	United States Lime & Minerals, Inc.	USLM	1	14					
Trecora Resources	TREC	2	29	291	United Technologies Corporation	UTX	3						
Tredegar Corporation	TG	3			United Therapeutics Corporation	UTHR	2	28	283	2834			
Trex Company, Inc.	TREX	2	24		United-Guardian, Inc.	UG	2	28	283	2834			
TRI Pointe Group, Inc.	TPH	1	15		UnitedHealth Group Incorporated	UNH	6	63	632	6324			
Tribune Publishing Company	TPCO	2	27		Unitil Corporation	UTL	4	49					
TriCo Bancshares	TCBK	6	60	602	Unity Bancorp, Inc.	UNTY	6	60	602				
TriMas Corporation	TRS	3			Universal Corporation	UVV	5	51					
Trimble Inc.	TRMB	3	38	382	Universal Display Corporation	OLED	3	36	367	3674			
TriNet Group, Inc.	TNET	7	73	737	Universal Electronics Inc.	UEIC	3	36					
Trinity Industries, Inc.	TRN	3			Universal Forest Products, Inc.	UFPI	2	24					
TripAdvisor, Inc.	TRIP	7	73	737	Universal Health Realty Income Trust	UHT	6	67			6798		
TriplePoint Venture Growth BDC Corp.	TPVG	6	67		Universal Health Services, Inc.	UHS	8	80					
Triple-S Management Corporation	GTS	6	63	632	Universal Insurance Holdings, Inc.	UVE	6	63	633				
TriState Capital Holdings, Inc.	TSC	6	60	602	Universal Logistics Holdings, Inc.	ULH	4						
Triumph Bancorp, Inc.	TBK	6	60	603	Univest Financial Corporation	UVSP	6	60	602				
TrueBlue, Inc.	TBI	7	73	736	Unum Group	UNM	6	63	632				
Truist Financial Corporation	TFC	6	60	602	Urban Outfitters, Inc.	URBN	5	56	565				
TrustCo Bank Corp NY	TRST	6	60	603	Urstadt Biddle Properties Inc.	UBA	6	67			6798		
Trustmark Corporation	TRMK	6	60	602	US Ecology, Inc.	ECOL	4	49	495				
TSR, Inc.	TSRI	7	73	737	USA Truck, Inc.	USAK	4						
TTEC Holdings, Inc.	TTEC	7	73	738	USANA Health Sciences, Inc.	USNA	2	28	283	2834			
TTM Technologies, Inc.	TTMI	3	36	367	USD Partners LP	USDP	4	46					
Tupperware Brands Corporation	TUP	3	30	308									
Tutor Perini Corporation	TPC	1											
Tyler Technologies, Inc.	TYL	7	73	737									
Tyson Foods, Inc.	TSN	2	20	201									

Appendix B: SIC Codes in which Companies (Main Set) are Included

Utah Medical Products, Inc.	UTMD	3	38	384	3845	WEC Energy Group, Inc.	WEC	4	49	493	4931
Vail Resorts, Inc.	MTN	7	79	799		Weingarten Realty Investors	WRI	6	67		6798
Valero Energy Corporation	VLO	2	29	291		Weis Markets, Inc.	WMK	5	54	541	5411
Valhi, Inc.	VHI	2	28	281		WellCare Health Plans, Inc.	WCG	6	63	632	6324
Valley National Bancorp	VLV	6	60	602		Wellesley Bancorp, Inc.	WEBK	6	60	602	
Valmont Industries, Inc.	VMI	3				Wells Fargo & Company	WFC	6	60	602	
Value Line, Inc.	VALU	2	27			Welltower Inc.	WELL	6	67		6798
Varian Medical Systems, Inc.	VAR	3	38	384	3845	Werner Enterprises, Inc.	WERN	4	42		4213
Vectrus, Inc.	VEC	8	87	874		WesBanco, Inc.	WSBC	6	60	602	
Veeva Systems Inc.	VEEV	7	73	737		WESCO International, Inc.	WCC	5	50	506	
Ventas, Inc.	VTR	6	67		6798	West Bancorporation, Inc.	WTBA	6	60	602	
Vera Bradley, Inc.	VRA	3	31			West Pharmaceutical Services	WST	3	30		
Verint Systems Inc.	VRNT	7	73	737		Westamerica Bancorporation	WABC	6	60	602	
Verisk Analytics, Inc.	VRSK	6	64			Westcore Energy Ltd.	WTR	4	49	494	
Veritex Holdings, Inc.	VBTX	6	60	602		Western Alliance Bancorporation	WAL	6	60	602	
Verizon Communications Inc.	VZ	4	48	481		Western Digital Corporation	WDC	3	35	357	
Vertex Pharmaceuticals Incorporated	VRTX	2	28	283	2834	Western Midstream Partners, LP	WES	4	49	492	4922
ViacomCBS Inc.	VIAC	4	48			Western New England Bancorp, Inc.	WNEB	6	60	603	6035
Viad Corp	VVI	7	73	738		Westlake Chemical Corporation	WLK	2	28	286	
Vicor Corporation	VICR	3	36	367		Westlake Chemical Partners LP	WLKP	2	28	286	
Village Bank and Trust Financial Corp.	VBFC	6	60	602		WestRock Company	WRK	2	26	265	
Village Super Market, Inc.	VLGEA	5	54	541	5411	Westwood Holdings Group, Inc.	WHG	6	62	628	
Viper Energy Partners LP	VNOM	6	67			WEX Inc.	WEX	7	73	737	7374
Virco Mfg. Corporation	VIRC	2	25			Weyco Group, Inc.	WEYS	5	51		
VirTra, Inc.	VTSI	3	36	369		Whirlpool Corporation	WHR	3	36		
Virtus Investment Partners, Inc.	VRTS	6	62	628		WhiteHorse Finance, Inc.	WHF	6	67		
Virtusa Corporation	VRTU	7	73	737		Whitestone REIT	WSR	6	67		6798
Visa Inc.	V	6	60			Wilhelmina International, Inc.	WHLM	7	79		
Vishay Intertechnology, Inc.	VSH	3	36	367		Willamette Valley Vineyards, Inc.	WVVI	2	20	208	
Vishay Precision Group, Inc.	VPG	3	36	367		Willdan Group, Inc.	WLDN	8	87		
Visteon Corporation	VC	3	37	371	3714	William Lyon Homes	WLH	1	15		
VOC Energy Trust	VOC	1	13	131		Williams-Sonoma, Inc.	WSM	5			
Vonage Holdings Corp.	VG	4	48			Willis Lease Finance Corporation	WLFC	7	73	735	
Vornado Realty Trust	VNO	6	67		6798	Winmark Corporation	WINA	6	67		6794
Voya Financial, Inc.	VOYA	6	63			Winnebago Industries, Inc.	WGO	3	37		
W. P. Carey Inc.	WPC	6	67		6798	Wintrust Financial Corporation	WTFC	6	60	602	
W. R. Berkley Corporation	WRB	6	63	633		WisdomTree Investments, Inc.	WETF	6	62	628	
W. R. Grace & Co.	GRA	2	28	281		Wolverine World Wide, Inc.	WWW	3	31		
W.W. Grainger, Inc.	GWW	5	50			Woodward, Inc.	WWD	3	36	362	
Wabash National Corporation	WNC	3	37	371		World Acceptance Corporation	WRLD	6	61	614	
WABCO Holdings Inc.	WBC	3	37	371	3714	World Fuel Services Corporation	INT	5	51	517	
Wabtec Corporation	WAB	3	37			Worthington Industries, Inc.	WOR	3			
Waddell & Reed Financial, Inc.	WDR	6	62	628		WSFS Financial Corporation	WSFS	6	60	603	6035
Walgreens Boots Alliance, Inc.	WBA	5	59			WVS Financial Corp.	WVFC	6	60	603	6036
Walker & Dunlop, Inc.	WD	6	61	616	6162	Wyndham Destinations, Inc.	WYND	6	65	653	
Walmart Inc.	WMT	5	53	533		Wynn Resorts, Limited	WYNN	7	79	799	
Washington Federal, Inc.	WAFD	6	60	602		Xcel Energy Inc.	XEL	4	49	493	4931
Washington Real Estate Investment Trust	WRE	6	67		6798	Xerox Holdings Corporation	XRX	3	35	357	3577
Washington Trust Bancorp, Inc.	WASH	6	60	602		Xilinx, Inc.	XLNX	3	36	367	3674
Waste Management, Inc.	WM	4	49	495		XPEL, Inc.	XPEL	3	37	371	3714
Waters Corporation	WAT	3	38	382	3826	XPO Logistics, Inc.	XPO	4	47	473	
Waterstone Financial, Inc.	WSBF	6	60	603	6035	Xylem Inc.	XYL	3			
Watsco, Inc.	WSO	5	50			Yelp Inc.	YELP	7	73	737	
Watts Water Technologies, Inc.	WTS	3	34	349		YUM! Brands, Inc.	YUM	5	58		5812
Wayside Technology Group, Inc.	WSTG	5	50	504	5045	ZAGG Inc	ZAGG	3	32		
WD-40 Company	WDFC	2	28			Zayo Group Holdings, Inc.	ZAYO	4	48		
Webster Financial Corporation	WBS	6	60	602							

Appendix B: SIC Codes in which Companies (Main Set) are Included

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Zebra Technologies Corporation	ZBRA	3	35	357	3577
Zimmer Biomet Holdings, Inc.	ZBH	3	38	384	3842
Zions Bancorporation, National Association	ZION	6	60	602	
Zix Corporation	ZIXI	7	73	737	
Zoetis Inc.	ZTS	2	28	283	2834
Zumiez Inc.	ZUMZ	5	56	565	

# Appendix C:

## Companies (High-Financial-Risk Set) in Each Industry, by SIC Code

Appendix C is a list of the High-Financial-Risk Set of companies used to calculate the metrics for a composite comprised of companies in the "High-Financial-Risk" category for each SIC code (data availability allowing) in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* (data through December 2019).

Appendix C: Companies (High-Financial Risk) in Each Industry, by SIC Code

**SIC 1**

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Abraxas Petroleum Corporation  
 Antero Resources Corporation  
 CNX Resources Corporation  
 CSI Compressco LP  
 Earthstone Energy, Inc.  
 Enservco Corporation  
 Foresight Energy LP  
 Freeport-McMoRan Inc.  
 Gran Tierra Energy Inc.  
 Great Lakes Dredge & Dock Corporation  
 Gulfport Energy Corporation  
 Hecla Mining Company  
 Hess Corporation  
 HighPoint Resources Corporation  
 Hovnanian Enterprises, Inc.  
 Independence Contract Drilling, Inc.  
 ION Geophysical Corporation  
 KBR, Inc.  
 Kosmos Energy Ltd.  
 Liquefied Natural Gas Limited  
 Matador Resources Company  
 Mid-Con Energy Partners, LP  
 Noble Energy, Inc.  
 Northern Oil and Gas, Inc.  
 Orion Group Holdings, Inc.  
 Panhandle Oil and Gas Inc.  
 PDC Energy, Inc.  
 QEP Resources, Inc.  
 Range Resources Corporation  
 SAExploration Holdings, Inc.  
 SM Energy Company  
 Summit Midstream Partners, LP  
 Superior Energy Services, Inc.  
 TETRA Technologies, Inc.  
 The New Home Company Inc.  
 W&T Offshore, Inc.  
 Whiting Petroleum Corporation  
 WPX Energy, Inc.

Earthstone Energy, Inc.  
 Enservco Corporation  
 Gran Tierra Energy Inc.  
 Gulfport Energy Corporation  
 Hess Corporation  
 HighPoint Resources Corporation  
 Independence Contract Drilling, Inc.  
 ION Geophysical Corporation  
 Kosmos Energy Ltd.  
 Liquefied Natural Gas Limited  
 Matador Resources Company  
 Mid-Con Energy Partners, LP  
 Noble Energy, Inc.  
 Northern Oil and Gas, Inc.  
 Panhandle Oil and Gas Inc.  
 PDC Energy, Inc.  
 QEP Resources, Inc.  
 Range Resources Corporation  
 SAExploration Holdings, Inc.  
 SM Energy Company  
 Summit Midstream Partners, LP  
 Superior Energy Services, Inc.  
 TETRA Technologies, Inc.  
 W&T Offshore, Inc.  
 Whiting Petroleum Corporation  
 WPX Energy, Inc.

Range Resources Corporation  
 SM Energy Company  
 Summit Midstream Partners, LP  
 W&T Offshore, Inc.  
 Whiting Petroleum Corporation  
 WPX Energy, Inc.

**SIC 2**

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A.H. Belo Corporation  
 Acorda Therapeutics, Inc.  
 Aemetis, Inc.  
 Akorn, Inc.  
 AMAG Pharmaceuticals, Inc.  
 Assertio Therapeutics, Inc.  
 Calumet Specialty Products Partners, L.P.  
 China XD Plastics Company Limited  
 Coty Inc.  
 Cumberland Pharmaceuticals Inc.  
 CVR Partners, LP  
 Cyanotech Corporation  
 Element Solutions Inc  
 Flotek Industries, Inc.  
 Houghton Mifflin Harcourt Company  
 ImmuCell Corporation  
 Insys Therapeutics Inc.  
 Koppers Holdings Inc.  
 Lannett Company, Inc.  
 Lee Enterprises, Incorporated  
 LSB Industries, Inc.  
 OMNOVA Solutions Inc.  
 Pacific Ethanol, Inc.  
 Primo Water Corporation  
 Quad/Graphics, Inc.  
 R.R. Donnelley & Sons Company  
 Rayonier Advanced Materials Inc.  
 Reliv' International, Inc.  
 Resolute Forest Products Inc.  
 Revlon, Inc.  
 The Dixie Group, Inc.  
 The McClatchy Company  
 TreeHouse Foods, Inc.  
 Youngevity International, Inc.

**SIC 131**

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Abraxas Petroleum Corporation  
 Antero Resources Corporation  
 CNX Resources Corporation  
 Earthstone Energy, Inc.  
 Gran Tierra Energy Inc.  
 Gulfport Energy Corporation  
 Hess Corporation  
 HighPoint Resources Corporation  
 Kosmos Energy Ltd.  
 Liquefied Natural Gas Limited  
 Matador Resources Company  
 Mid-Con Energy Partners, LP  
 Noble Energy, Inc.  
 Northern Oil and Gas, Inc.  
 Panhandle Oil and Gas Inc.  
 PDC Energy, Inc.  
 QEP Resources, Inc.

**SIC 13**

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Abraxas Petroleum Corporation  
 Antero Resources Corporation  
 CNX Resources Corporation  
 CSI Compressco LP

**SIC 27**

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A.H. Belo Corporation  
 Houghton Mifflin Harcourt Company  
 Lee Enterprises, Incorporated  
 Quad/Graphics, Inc.

Appendix C: Companies (High-Financial Risk) in Each Industry, by SIC Code

R.R. Donnelley & Sons  
Company  
The McClatchy Company

AK Steel Holding  
Corporation  
Allegheny Technologies  
Incorporated  
Alphatec Holdings, Inc.

Pitney Bowes Inc.  
RTI Surgical Holdings, Inc.  
SIFCO Industries, Inc.  
SMTC Corporation  
Summer Infant, Inc.  
Superior Drilling Products,  
Inc.

**SIC 28**

Acorda Therapeutics, Inc.  
Aemetis, Inc.  
Akorn, Inc.  
AMAG Pharmaceuticals,  
Inc.  
Assertio Therapeutics, Inc.  
China XD Plastics  
Company Limited  
Coty Inc.  
Cumberland  
Pharmaceuticals Inc.  
CVR Partners, LP  
Cyanotech Corporation  
Element Solutions Inc  
Flotek Industries, Inc.  
ImmuCell Corporation  
Insys Therapeutics Inc.  
Lannett Company, Inc.  
LSB Industries, Inc.  
OMNOVA Solutions Inc.  
Pacific Ethanol, Inc.  
Reliv' International, Inc.  
Revlon, Inc.  
Youngevity International,  
Inc.

Ampco-Pittsburgh  
Corporation  
AngioDynamics, Inc.  
Art's-Way Manufacturing  
Co., Inc.  
Avanos Medical, Inc.  
Avid Technology, Inc.  
Bel Fuse Inc.  
Broadwind Energy, Inc.  
CECO Environmental Corp.  
Century Aluminum  
Company  
Chart Industries, Inc.  
China Recycling Energy  
Corporation  
ClearOne, Inc.  
CPS Technologies  
Corporation  
CTI Industries Corporation  
DENTSPLY SIRONA Inc.  
Dynatronics Corporation  
Eastman Kodak Company  
Extreme Networks, Inc.  
Ford Motor Company

Superior Industries  
International, Inc.  
Tenneco Inc.  
Tesla, Inc.  
The L.S. Starrett Company  
The Manitowoc Company,  
Inc.  
TimkenSteel Corporation  
Titan International, Inc.  
TransDigm Group  
Incorporated  
Triumph Group, Inc.  
United States Steel  
Corporation  
Universal Stainless & Alloy  
Products, Inc.  
Veeco Instruments Inc.  
Viavi Solutions Inc.

**SIC 283**

Acorda Therapeutics, Inc.  
Akorn, Inc.  
AMAG Pharmaceuticals,  
Inc.  
Assertio Therapeutics, Inc.  
Cumberland  
Pharmaceuticals Inc.  
Cyanotech Corporation  
ImmuCell Corporation  
Insys Therapeutics Inc.  
Lannett Company, Inc.  
Reliv' International, Inc.  
Youngevity International,  
Inc.

Forum Energy  
Technologies, Inc.  
FreightCar America, Inc.  
Harmonic Inc.  
Harvard Bioscience, Inc.  
Infinera Corporation  
Invacare Corporation  
Itron, Inc.  
JAKKS Pacific, Inc.  
Kingold Jewelry, Inc.  
Koss Corporation  
Lantronix, Inc.  
Libbey Inc.

**SIC 33**

AK Steel Holding  
Corporation  
Allegheny Technologies  
Incorporated  
Century Aluminum  
Company  
TimkenSteel Corporation  
United States Steel  
Corporation  
Universal Stainless & Alloy  
Products, Inc.

**SIC 2834**

Akorn, Inc.  
AMAG Pharmaceuticals,  
Inc.  
Assertio Therapeutics, Inc.  
Cumberland  
Pharmaceuticals Inc.  
Insys Therapeutics Inc.  
Lannett Company, Inc.  
Reliv' International, Inc.  
Youngevity International,  
Inc.

MACOM Technology  
Solutions Holdings, Inc.  
MagnaChip Semiconductor  
Corporation  
Manitex International, Inc.  
Mattel, Inc.  
Micron Solutions, Inc.  
National Oilwell Varco, Inc.  
Navistar International  
Corporation  
NeoPhotonics Corporation  
Newell Brands Inc.  
NL Industries, Inc.  
NN, Inc.  
Nortech Systems  
Incorporated

**SIC 35**

3D Systems Corporation  
Art's-Way Manufacturing  
Co., Inc.  
Broadwind Energy, Inc.  
CECO Environmental Corp.  
Extreme Networks, Inc.  
Forum Energy  
Technologies, Inc.  
Infinera Corporation  
Lantronix, Inc.  
Manitex International, Inc.  
National Oilwell Varco, Inc.  
NL Industries, Inc.  
Pitney Bowes Inc.  
Superior Drilling Products,  
Inc.  
The Manitowoc Company,  
Inc.  
Veeco Instruments Inc.

**SIC 3**

3D Systems Corporation  
Accuray Incorporated

Perma-Pipe International  
Holdings, Inc.  
Pioneer Power Solutions,  
Inc.

**SIC 353**

Forum Energy  
Technologies, Inc.

Appendix C: Companies (High-Financial Risk) in Each Industry, by SIC Code

Manitex International, Inc.  
National Oilwell Varco, Inc.  
Superior Drilling Products, Inc.  
The Manitowoc Company, Inc.

**SIC 36**

Bel Fuse Inc.  
China Recycling Energy Corporation  
ClearOne, Inc.  
Harmonic Inc.  
Koss Corporation  
MACOM Technology Solutions Holdings, Inc.  
MagnaChip Semiconductor Corporation  
NeoPhotonics Corporation  
Nortech Systems Incorporated  
Pioneer Power Solutions, Inc.  
SMTC Corporation

**SIC 367**

Bel Fuse Inc.  
MACOM Technology Solutions Holdings, Inc.  
MagnaChip Semiconductor Corporation  
NeoPhotonics Corporation  
Nortech Systems Incorporated  
SMTC Corporation

**SIC 37**

Ford Motor Company  
FreightCar America, Inc.  
Navistar International Corporation  
SIFCO Industries, Inc.  
Superior Industries International, Inc.  
Tenneco Inc.  
Tesla, Inc.  
TransDigm Group Incorporated  
Triumph Group, Inc.

**SIC 371**

Ford Motor Company  
Navistar International Corporation  
Superior Industries International, Inc.  
Tenneco Inc.  
Tesla, Inc.

**SIC 38**

Accuray Incorporated  
Alphatec Holdings, Inc.

AngioDynamics, Inc.  
Avanos Medical, Inc.  
Avid Technology, Inc.  
DENTSPLY SIRONA Inc.  
Dynatronics Corporation  
Harvard Bioscience, Inc.  
Invacare Corporation  
Itron, Inc.  
Micron Solutions, Inc.  
RTI Surgical Holdings, Inc.

**SIC 384**

Accuray Incorporated  
Alphatec Holdings, Inc.  
AngioDynamics, Inc.  
Avanos Medical, Inc.  
DENTSPLY SIRONA Inc.  
Dynatronics Corporation  
Invacare Corporation  
Micron Solutions, Inc.  
RTI Surgical Holdings, Inc.

**SIC 4**

Boingo Wireless, Inc.  
Casella Waste Systems, Inc.  
Consolidated Communications Holdings, Inc.  
EnLink Midstream, LLC  
Entercom Communications Corp.  
EQT Corporation  
FirstEnergy Corp.  
Frontier Communications Corporation  
GCI Liberty Inc.  
Globalstar, Inc.  
Gogo Inc.  
GTT Communications, Inc.  
Hudson Technologies Inc.  
JanOne Inc.  
KVH Industries, Inc.  
NRG Energy, Inc.  
ORBCOMM Inc.  
Perma-Fix Environmental Services, Inc.  
PG&E Corporation  
Roadrunner Transportation Systems, Inc.  
Salem Media Group, Inc.  
Sprint Corporation  
Targa Resources Corp.  
TerraForm Power, Inc.  
Urban One Inc.  
YRC Worldwide Inc.

**SIC 48**

Boingo Wireless, Inc.  
Consolidated Communications Holdings, Inc.

Entercom Communications Corp.  
Frontier Communications Corporation  
GCI Liberty Inc.  
Globalstar, Inc.  
Gogo Inc.  
GTT Communications, Inc.  
KVH Industries, Inc.  
ORBCOMM Inc.  
Salem Media Group, Inc.  
Sprint Corporation  
Urban One Inc.

**SIC 49**

Casella Waste Systems, Inc.  
EnLink Midstream, LLC  
EQT Corporation  
FirstEnergy Corp.  
Hudson Technologies Inc.  
JanOne Inc.  
NRG Energy, Inc.  
Perma-Fix Environmental Services, Inc.  
PG&E Corporation  
Targa Resources Corp.  
TerraForm Power, Inc.

**SIC 5**

A-Mark Precious Metals, Inc.  
Ascena Retail Group, Inc.  
AutoZone, Inc.  
BlueLinx Holdings Inc.  
Clean Energy Fuels Corp.  
Destination XL Group, Inc.  
Diplomat Pharmacy, Inc.  
Diversified Restaurant Holdings, Inc.  
Domino's Pizza, Inc.  
Envela Corporation  
Good Times Restaurants Inc.  
iMedia Brands, Inc.  
J. C. Penney Company, Inc.  
Luby's, Inc.  
Martin Midstream Partners L.P.  
MRC Global Inc.  
Noodles & Company  
Owens & Minor, Inc.  
Pyxus International, Inc.  
RTW Retailwinds, Inc.  
Stage Stores, Inc.  
Stein Mart, Inc.  
Tailored Brands, Inc.  
The Michaels Companies, Inc.  
The ONE Group Hospitality, Inc.  
Tuesday Morning

Appendix C: Companies (High-Financial Risk) in Each Industry, by SIC Code

Corporation  
 U.S. Auto Parts Network,  
 Inc.  
 United Natural Foods, Inc.

**SIC 56**

Ascena Retail Group, Inc.  
 Destination XL Group, Inc.  
 RTW Retailwinds, Inc.  
 Stage Stores, Inc.  
 Stein Mart, Inc.  
 Tailored Brands, Inc.

**SIC 58**

Diversified Restaurant  
 Holdings, Inc.  
 Domino's Pizza, Inc.  
 Good Times Restaurants  
 Inc.  
 Luby's, Inc.  
 Noodles & Company  
 The ONE Group Hospitality,  
 Inc.

**SIC 5812**

Diversified Restaurant  
 Holdings, Inc.  
 Domino's Pizza, Inc.  
 Good Times Restaurants  
 Inc.  
 Luby's, Inc.  
 Noodles & Company  
 The ONE Group Hospitality,  
 Inc.

**SIC 59**

Diplomat Pharmacy, Inc.  
 Envela Corporation  
 iMedia Brands, Inc.  
 The Michaels Companies,  
 Inc.  
 U.S. Auto Parts Network,  
 Inc.

**SIC 6**

AG Mortgage Investment  
 Trust, Inc.  
 AGNC Investment Corp.  
 Altisource Asset  
 Management Corporation  
 Ambac Financial Group,  
 Inc.  
 American Homes 4 Rent  
 Apex Global Brands Inc.  
 Arlington Asset Investment  
 Corp.  
 ARMOUR Residential REIT,  
 Inc.  
 Ashford Hospitality Trust,  
 Inc.  
 Barings BDC, Inc.  
 Bluerock Residential  
 Growth REIT, Inc.

Brookfield DTLA Office  
 Brookfield Property REIT  
 Inc.

Capitala Finance Corp.

Capstead Mortgage  
 Corporation

Carver Bancorp, Inc.

CBL & Associates  
 Properties, Inc.

Cedar Realty Trust, Inc.

Cherry Hill Mortgage  
 Investment Corporation

Chimera Investment  
 Corporation

CIM Commercial Trust  
 Corporation

Citizens, Inc.

Colony Capital, Inc.

Condor Hospitality Trust,  
 Inc.

Consumer Portfolio  
 Services, Inc.

CyrusOne Inc.

Dine Brands Global, Inc.

Dynex Capital, Inc.

Ellington Financial Inc.

Ellington Residential  
 Mortgage REIT

Envestnet, Inc.

Exantas Capital Corp.

Genworth Financial, Inc.

Gladstone Commercial  
 Corporation

Grupa LOTOS S.A.

Hunt Companies Finance  
 Trust, Inc.

Iconix Brand Group, Inc.

INTL FCStone Inc.

iStar Inc.

JMP Group LLC

Kite Realty Group Trust

Limestone Bancorp, Inc.

MBIA Inc.

Medley Management Inc.

MoneyGram International,  
 Inc.

MVC Capital, Inc.

National Holdings  
 Corporation

Navient Corporation

New England Realty  
 Associates Limited  
 Partnership

New Senior Investment  
 Group Inc.

New York Mortgage Trust,  
 Inc.

Oaktree Specialty Lending  
 Corporation

Office Properties Income  
 Trust

Orchid Island Capital, Inc.

Pennsylvania Real Estate  
 Investment Trust

Portman Ridge Finance  
 Corporation

Power REIT

Preferred Apartment  
 Communities, Inc.

Redwood Trust, Inc.

Regional Health Properties,  
 Inc.

SBA Communications  
 Corporation

Sculptor Capital  
 Management, Inc.  
 Sequential Brands Group,  
 Inc.

SITE Centers Corp.

Sotherly Hotels Inc.

StoneMor Inc.

Two Harbors Investment  
 Corp.

UMH Properties, Inc.

Usio, Inc.

VEREIT, Inc.

Washington Prime Group  
 Inc.

Western Asset Mortgage  
 Capital Corporation

**SIC 62**

Ellington Financial Inc.  
 Envestnet, Inc.  
 Grupa LOTOS S.A.  
 INTL FCStone Inc.  
 JMP Group LLC  
 Medley Management Inc.  
 National Holdings  
 Corporation  
 Sculptor Capital  
 Management, Inc.

**SIC 67**

AG Mortgage Investment  
 Trust, Inc.  
 AGNC Investment Corp.  
 American Homes 4 Rent  
 Apex Global Brands Inc.  
 Arlington Asset Investment  
 Corp.  
 ARMOUR Residential REIT,  
 Inc.  
 Ashford Hospitality Trust,  
 Inc.  
 Barings BDC, Inc.  
 Bluerock Residential  
 Growth REIT, Inc.  
 Brookfield DTLA Office  
 Brookfield Property REIT  
 Inc.  
 Capitala Finance Corp.  
 Capstead Mortgage  
 Corporation

Appendix C: Companies (High-Financial Risk) in Each Industry, by SIC Code

CBL & Associates Properties, Inc.	<b>SIC 6798</b>	Inc.
Cedar Realty Trust, Inc.	AG Mortgage Investment Trust, Inc.	Western Asset Mortgage Capital Corporation
Cherry Hill Mortgage Investment Corporation	AGNC Investment Corp.	
Chimera Investment Corporation	American Homes 4 Rent ARMOUR Residential REIT, Inc.	<b>SIC 7</b>
CIM Commercial Trust Corporation	Ashford Hospitality Trust, Inc.	AeroCentury Corp.
Colony Capital, Inc.	Bluerock Residential Growth REIT, Inc.	Allscripts Healthcare Solutions, Inc.
Condor Hospitality Trust, Inc.	Brookfield DTLA Office Brookfield Property REIT Inc.	AMC Entertainment Holdings, Inc.
CyrusOne Inc.	Capstead Mortgage Corporation	Asure Software, Inc.
Dine Brands Global, Inc.	CBL & Associates Properties, Inc.	AutoWeb, Inc.
Dynex Capital, Inc.	Cedar Realty Trust, Inc.	Avis Budget Group, Inc.
Ellington Residential Mortgage REIT	Cherry Hill Mortgage Investment Corporation	Bottomline Technologies (de), Inc.
Exantas Capital Corp.	Chimera Investment Corporation	Caesars Entertainment Corporation
Gladstone Commercial Corporation	CIM Commercial Trust Corporation	Clear Channel Outdoor Holdings, Inc.
Hunt Companies Finance Trust, Inc.	Colony Capital, Inc.	Commvault Systems, Inc.
Iconix Brand Group, Inc.	Condor Hospitality Trust, Inc.	eGain Corporation
iStar Inc.	CyrusOne Inc.	Endurance International Group Holdings, Inc.
Kite Realty Group Trust	Dynex Capital, Inc.	Full House Resorts, Inc.
MVC Capital, Inc.	Ellington Residential Mortgage REIT	GEE Group, Inc.
New Senior Investment Group Inc.	Exantas Capital Corp.	General Finance Corporation
New York Mortgage Trust, Inc.	Gladstone Commercial Corporation	Golden Entertainment, Inc.
Oaktree Specialty Lending Corporation	Hunt Companies Finance Trust, Inc.	Groupon, Inc.
Office Properties Income Trust	iStar Inc.	GSE Systems, Inc.
Orchid Island Capital, Inc.	Kite Realty Group Trust	Hertz Global Holdings, Inc.
Pennsylvania Real Estate Investment Trust	New Senior Investment Group Inc.	InnerWorkings, Inc.
Portman Ridge Finance Corporation	New York Mortgage Trust, Inc.	Internap Corporation
Power REIT	Office Properties Income Trust	Inuvo, Inc.
Preferred Apartment Communities, Inc.	Orchid Island Capital, Inc.	Kratos Defense & Security Solutions, Inc.
Redwood Trust, Inc.	Pennsylvania Real Estate Investment Trust	Liberty TripAdvisor Holdings, Inc.
Regional Health Properties, Inc.	Power REIT	Limelight Networks, Inc.
SBA Communications Corporation	Preferred Apartment Communities, Inc.	Live Nation Entertainment, Inc.
Sequential Brands Group, Inc.	Redwood Trust, Inc.	LivePerson, Inc.
SITE Centers Corp.	Regional Health Properties, Inc.	National CineMedia, Inc.
Sotherly Hotels Inc.	SBA Communications Corporation	Nuance Communications, Inc.
Two Harbors Investment Corp.	SITE Centers Corp.	Performant Financial Corporation
UMH Properties, Inc.	Sotherly Hotels Inc.	PFSweb, Inc.
VEREIT, Inc.	Two Harbors Investment Corp.	Rent-A-Center, Inc.
Washington Prime Group Inc.	UMH Properties, Inc.	Ribbon Communications Inc.
Western Asset Mortgage Capital Corporation	VEREIT, Inc.	SeaWorld Entertainment, Inc.
	Washington Prime Group	Steel Connect, Inc.
		Synacor, Inc.
		Synchronoss Technologies, Inc.
		The Brink's Company
		The InterGroup Corporation
		The Meet Group, Inc.
		The Rubicon Project, Inc.
		Town Sports International Holdings, Inc.

Appendix C: Companies (High-Financial Risk) in Each Industry, by SIC Code

Unisys Corporation  
Upland Software, Inc.  
VeriSign, Inc.

Endurance International  
Group Holdings, Inc.  
Groupon, Inc.  
Internap Corporation  
Inuvo, Inc.  
Kratos Defense & Security  
Solutions, Inc.  
Liberty TripAdvisor  
Holdings, Inc.  
Limelight Networks, Inc.  
LivePerson, Inc.  
Nuance Communications,  
Inc.  
PFSweb, Inc.  
Ribbon Communications  
Inc.  
Synacor, Inc.  
Synchronoss Technologies,  
Inc.  
The Meet Group, Inc.  
The Rubicon Project, Inc.  
Unisys Corporation  
Upland Software, Inc.  
VeriSign, Inc.

Lincoln Educational  
Services Corporation  
NeoGenomics, Inc.  
R1 RCM Inc.  
Tenet Healthcare  
Corporation  
Universal Technical  
Institute, Inc.

**SIC 73**

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AeroCentury Corp.  
Allscripts Healthcare  
Solutions, Inc.  
Asure Software, Inc.  
AutoWeb, Inc.  
Bottomline Technologies  
(de), Inc.  
Clear Channel Outdoor  
Holdings, Inc.  
Commvault Systems, Inc.  
eGain Corporation  
Endurance International  
Group Holdings, Inc.  
GEE Group, Inc.  
General Finance  
Corporation  
Groupon, Inc.  
GSE Systems, Inc.  
InnerWorkings, Inc.  
Internap Corporation  
Inuvo, Inc.  
Kratos Defense & Security  
Solutions, Inc.  
Liberty TripAdvisor  
Holdings, Inc.  
Limelight Networks, Inc.  
LivePerson, Inc.  
National CineMedia, Inc.  
Nuance Communications,  
Inc.  
Performant Financial  
Corporation  
PFSweb, Inc.  
Rent-A-Center, Inc.  
Ribbon Communications  
Inc.  
Steel Connect, Inc.  
Synacor, Inc.  
Synchronoss Technologies,  
Inc.  
The Brink's Company  
The Meet Group, Inc.  
The Rubicon Project, Inc.  
Unisys Corporation  
Upland Software, Inc.  
VeriSign, Inc.

**SIC 79**

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Caesars Entertainment  
Corporation  
Full House Resorts, Inc.  
Golden Entertainment, Inc.  
Live Nation Entertainment,  
Inc.  
SeaWorld Entertainment,  
Inc.  
Town Sports International  
Holdings, Inc.

**SIC 799**

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Caesars Entertainment  
Corporation  
Full House Resorts, Inc.  
Golden Entertainment, Inc.  
SeaWorld Entertainment,  
Inc.  
Town Sports International  
Holdings, Inc.

**SIC 8**

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Bioanalytical Systems, Inc.  
Brookdale Senior Living Inc.  
Capital Senior Living  
Corporation  
Community Health  
Systems, Inc.  
Digirad Corporation  
ENGlobal Corporation  
Five Star Senior Living Inc.  
Hanger, Inc.  
HCA Healthcare, Inc.  
Hill International, Inc.  
InfuSystem Holdings Inc.

**SIC 80**

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Brookdale Senior Living Inc.  
Community Health  
Systems, Inc.  
Digirad Corporation  
Five Star Senior Living Inc.  
Hanger, Inc.  
HCA Healthcare, Inc.  
InfuSystem Holdings Inc.  
NeoGenomics, Inc.  
Tenet Healthcare  
Corporation

**SIC 737**

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Allscripts Healthcare  
Solutions, Inc.  
Asure Software, Inc.  
AutoWeb, Inc.  
Bottomline Technologies  
(de), Inc.  
Commvault Systems, Inc.  
eGain Corporation

## Appendix D:

# SIC Codes in which Companies (High-Financial-Risk Set) are Included

Appendix D is a list of the SIC codes in which each of the companies in the High-Financial-Risk Set of companies are included in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* (data through December 2019).



Appendix D: SIC Codes in which Companies (High- Financial Risk) are Included

Envestnet, Inc.	ENV	6	62		iStar Inc.	STAR	6	67	6798
EQT Corporation	EQT	4	49		Itron, Inc.	ITRI	3	38	
Exantas Capital Corp.	XAN	6	67	6798	J. C. Penney Company, Inc.	JCP	5		
Extreme Networks, Inc.	EXTR	3	35		JAKKS Pacific, Inc.	JAKK	3		
FirstEnergy Corp.	FE	4	49		JanOne Inc.	JAN	4	49	
Five Star Senior Living Inc.	FVE	8	80		JMP Group LLC	JMP	6	62	
Flotek Industries, Inc.	FTK	2	28		KBR, Inc.	KBR	1		
Ford Motor Company	F	3	37	371	Kingold Jewelry, Inc.	KGJI	3		
Foresight Energy LP	FELP	1			Kite Realty Group Trust	KRG	6	67	6798
Forum Energy Technologies, Inc.	FET	3	35	353	Koppers Holdings Inc.	KOP	2		
Freeport-McMoRan Inc.	FCX	1			Kosmos Energy Ltd.	KOS	1	13	131
FreightCar America, Inc.	RAIL	3	37		Koss Corporation	KOSS	3	36	
Frontier Communications Corporation	FTR	4	48		Kratos Defense & Security Solutions, Inc.	KTOS	7	73	737
Full House Resorts, Inc.	FLL	7	79	799	KVH Industries, Inc.	KVHI	4	48	
GCI Liberty Inc.	GLIBA	4	48		Lannett Company, Inc.	LCI	2	28	283 2834
GEE Group, Inc.	JOB	7	73		Lantronix, Inc.	LTRX	3	35	
General Finance Corporation	GFN	7	73		Lee Enterprises, Incorporated	LEE	2	27	
Genworth Financial, Inc.	GNW	6			Libbey Inc.	LBY	3		
Gladstone Commercial Corporation	GOOD	6	67	6798	Liberty TripAdvisor Holdings, Inc.	LTRPA	7	73	737
Globalstar, Inc.	GSAT	4	48		Limelight Networks, Inc.	LLNW	7	73	737
Gogo Inc.	GOGO	4	48		Limestone Bancorp, Inc.	LMST	6		
Golden Entertainment, Inc.	GDEN	7	79	799	Lincoln Educational Services Corporation	LINC	8		
Good Times Restaurants Inc.	GTIM	5	58	5812	Liquefied Natural Gas Limited	LNG	1	13	131
Gran Tierra Energy Inc.	GTE	1	13	131	Live Nation Entertainment, Inc.	LYV	7	79	
Great Lakes Dredge & Dock Corporation	GLDD	1			LivePerson, Inc.	LPSN	7	73	737
Groupon, Inc.	GRPN	7	73	737	LSB Industries, Inc.	LXU	2	28	
Grupa LOTOS S.A.	LTS	6	62		Luby's, Inc.	LUB	5	58	5812
GSE Systems, Inc.	GVP	7	73		MACOM Technology Solutions Holdings, Inc.	MTSI	3	36	367
GTT Communications, Inc.	GTT	4	48		MagnaChip Semiconductor Corporation	MX	3	36	367
Gulfport Energy Corporation	GPOR	1	13	131	Manitex International, Inc.	MNTX	3	35	353
Hanger, Inc.	HNGR	8	80		Martin Midstream Partners L.P.	MMLP	5		
Harmonic Inc.	HLIT	3	36		Matador Resources Company	MTDR	1	13	131
Harvard Bioscience, Inc.	HBIO	3	38		Mattel, Inc.	MAT	3		
HCA Healthcare, Inc.	HCA	8	80		MBIA Inc.	MBI	6		
Hecla Mining Company	HL	1			Medley Management Inc.	MDLY	6	62	
Hertz Global Holdings, Inc.	HTZ	7			Micron Solutions, Inc.	MICR	3	38	384
Hess Corporation	HES	1	13	131	Mid-Con Energy Partners, LP	MCEP	1	13	131
HighPoint Resources Corporation	HPR	1	13	131	MoneyGram International, Inc.	MGI	6		
Hill International, Inc.	HIL	8			MRC Global Inc.	MRC	5		
Houghton Mifflin Harcourt Company	HMHC	2	27		MVC Capital, Inc.	MVC	6	67	
Hovnanian Enterprises, Inc.	HOV	1			National CineMedia, Inc.	NCMI	7	73	
Hudson Technologies Inc.	HDSN	4	49		National Holdings Corporation	NHLD	6	62	
Hunt Companies Finance Trust, Inc.	HCFT	6	67	6798	National Oilwell Varco, Inc.	NOV	3	35	353
Iconix Brand Group, Inc.	ICON	6	67		Navent Corporation	NAVI	6		
iMedia Brands, Inc.	IMBI	5	59		Navistar International Corporation	NAV	3	37	371
ImmuCell Corporation	ICCC	2	28	283	NeoGenomics, Inc.	NEO	8	80	
Independence Contract Drilling, Inc.	ICD	1	13		NeoPhotonics Corporation	NPTN	3	36	367
Infinera Corporation	INFN	3	35		New England Realty Associates Limited Partnership	NEN	6		
InfuSystem Holdings Inc.	INFU	8	80		New Senior Investment Group Inc.	SNR	6	67	6798
InnerWorkings, Inc.	INWK	7	73		New York Mortgage Trust, Inc.	NYMT	6	67	6798
Insys Therapeutics Inc.	INSYQ	2	28	283 2834	Newell Brands Inc.	NWL	3		
Internap Corporation	INAP	7	73	737	NL Industries, Inc.	NL	3	35	
INTL FCStone Inc.	INTL	6	62		NN, Inc.	NNBR	3		
Inuvo, Inc.	INUV	7	73	737	Noble Energy, Inc.	NBL	1	13	131
Invacare Corporation	IVC	3	38	384	Noodles & Company	NDLS	5	58	5812
ION Geophysical Corporation	IO	1	13						

## Appendix D: SIC Codes in which Companies (High- Financial Risk) are Included

Nortech Systems Incorporated	NSYS	3	36	367				
Northern Oil and Gas, Inc.	NOG	1	13	131				
NRG Energy, Inc.	NRG	4	49					
Nuance Communications, Inc.	NUAN	7	73	737				
Oaktree Specialty Lending Corporation	OCSL	6	67					
Office Properties Income Trust	OPI	6	67		6798			
OMNOVA Solutions Inc.	OMN	2	28					
ORBCOMM Inc.	ORBC	4	48					
Orchid Island Capital, Inc.	ORC	6	67		6798			
Orion Group Holdings, Inc.	ORN	1						
Owens & Minor, Inc.	OMI	5						
Pacific Ethanol, Inc.	PEIX	2	28					
Panhandle Oil and Gas Inc.	PHX	1	13	131				
PDC Energy, Inc.	PDCE	1	13	131				
Pennsylvania Real Estate Investment Trust	PEI	6	67		6798			
Permant Financial Corporation	PFMT	7	73					
Perma-Fix Environmental Services, Inc.	PESI	4	49					
Perma-Pipe International Holdings, Inc.	PPIH	3						
PFSweb, Inc.	PFSW	7	73	737				
PG&E Corporation	PCG	4	49					
Pioneer Power Solutions, Inc.	PPSI	3	36					
Pitney Bowes Inc.	PBI	3	35					
Portman Ridge Finance Corporation	PTMN	6	67					
Power REIT	PW	6	67		6798			
Preferred Apartment Communities, Inc.	APTS	6	67		6798			
Primo Water Corporation	PRMW	2						
Pyxus International, Inc.	PYX	5						
QEP Resources, Inc.	QEP	1	13	131				
Quad/Graphics, Inc.	QUAD	2	27					
R.R. Donnelley & Sons Company	RRD	2	27					
R1 RCM Inc.	RCM	8						
Range Resources Corporation	RRC	1	13	131				
Rayonier Advanced Materials Inc.	RYAM	2						
Redwood Trust, Inc.	RWT	6	67		6798			
Regional Health Properties, Inc.	RHE	6	67		6798			
Reliv' International, Inc.	RELV	2	28	283	2834			
Rent-A-Center, Inc.	RCII	7	73					
Resolute Forest Products Inc.	RFP	2						
Revlon, Inc.	REV	2	28					
Ribbon Communications Inc.	RBBN	7	73	737				
Roadrunner Transportation Systems, Inc.	RRTS	4						
RTI Surgical Holdings, Inc.	RTIX	3	38	384				
RTW Retailwinds, Inc.	RTW	5	56					
SAExploration Holdings, Inc.	SAEX	1	13					
Salem Media Group, Inc.	SALM	4	48					
SBA Communications Corporation	SBAC	6	67		6798			
Sculptor Capital Management, Inc.	SCU	6	62					
SeaWorld Entertainment, Inc.	SEAS	7	79	799				
Sequential Brands Group, Inc.	SQBG	6	67					
SIFCO Industries, Inc.	SIF	3	37					
SITE Centers Corp.	SITC	6	67		6798			
SM Energy Company	SM	1	13	131				
SMTX Corporation	SMTX	3	36	367				
Sotherly Hotels Inc.	SOHO	6	67					6798
Sprint Corporation	S	4	48					
Stage Stores, Inc.	SSI	5	56					
Steel Connect, Inc.	STCN	7	73					
Stein Mart, Inc.	SMRT	5	56					
StoneMor Inc.	STON	6						
Summer Infant, Inc.	SUMR	3						
Summit Midstream Partners, LP	SMLP	1	13	131				
Superior Drilling Products, Inc.	SDPI	3	35	353				
Superior Energy Services, Inc.	SPN	1	13					
Superior Industries International, Inc.	SUP	3	37	371				
Synacor, Inc.	SYNC	7	73	737				
Synchronoss Technologies, Inc.	SNCR	7	73	737				
Tailored Brands, Inc.	TLRD	5	56					
Targa Resources Corp.	TRGP	4	49					
Tenet Healthcare Corporation	THC	8	80					
Tenneco Inc.	TEN	3	37	371				
TerraForm Power, Inc.	TERP	4	49					
Tesla, Inc.	TSLA	3	37	371				
TETRA Technologies, Inc.	TTI	1	13					
The Brink's Company	BCO	7	73					
The Dixie Group, Inc.	DXYN	2						
The InterGroup Corporation	INTG	7						
The L.S. Starrett Company	SCX	3						
The Manitowoc Company, Inc.	MTW	3	35	353				
The McClatchy Company	MNI	2	27					
The Meet Group, Inc.	MEET	7	73	737				
The Michaels Companies, Inc.	MIK	5	59					
The New Home Company Inc.	NWHM	1						
The ONE Group Hospitality, Inc.	STKS	5	58					5812
The Rubicon Project, Inc.	RUBI	7	73	737				
TimkenSteel Corporation	TMST	3	33					
Titan International, Inc.	TWI	3						
Town Sports International Holdings, Inc.	CLUB	7	79	799				
TransDigm Group Incorporated	TDG	3	37					
TreeHouse Foods, Inc.	THS	2						
Triumph Group, Inc.	TGI	3	37					
Tuesday Morning Corporation	TUES	5						
Two Harbors Investment Corp.	TWO	6	67		6798			
U.S. Auto Parts Network, Inc.	PRTS	5	59					
UMH Properties, Inc.	UMH	6	67		6798			
Unisys Corporation	UIS	7	73	737				
United Natural Foods, Inc.	UNFI	5						
United States Steel Corporation	X	3	33					
Universal Stainless & Alloy Products, Inc.	USAP	3	33					
Universal Technical Institute, Inc.	UTI	8						
Upland Software, Inc.	UPLD	7	73	737				
Urban One Inc.	UONEK	4	48					
Usio, Inc.	USIO	6						
Veeco Instruments Inc.	VECO	3	35					
VEREIT, Inc.	VER	6	67		6798			
VeriSign, Inc.	VERSN	7	73	737				
Viavi Solutions Inc.	VIAV	3						
W&T Offshore, Inc.	WTI	1	13	131				
Washington Prime Group Inc.	WPG	6	67		6798			
Western Asset Mortgage Capital Corporation	WMC	6	67		6798			
Whiting Petroleum Corporation	WLL	1	13	131				

Appendix D: SIC Codes in which Companies (High- Financial Risk) are Included

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WPX Energy, Inc.	WPX	1	13	131	
Youngevity International, Inc.	YGYI	2	28	283	2834
YRC Worldwide Inc.	YRCW	4			

## Appendix E:

### Industry List by SIC Code

Appendix E is a list of the U.S. industries analyzed in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* (data through December 2019) by SIC code.

## Appendix E: Industry List by SIC Code

1	Mining & Construction	3663	Radio and Television Broadcasting and Communications Equipment
13	Oil and Gas Extraction	367	Electronic Components and Accessories
131	Crude Petroleum and Natural Gas	3672	Printed Circuit Boards
14	Mining and Quarrying Of Nonmetallic Minerals, Except Fuels	3674	Semiconductors and Related Devices
15	Building Construction General Contractors and Operative Builders	369	Miscellaneous Electrical Machinery, Equipment, and Supplies
16	Heavy Construction Other Than Building Construction Contractors	37	Transportation Equipment
2	Manufacturing	371	Motor Vehicles and Motor Vehicle Equipment
20	Food and Kindred Products	3714	Motor Vehicle Parts and Accessories
201	Meat Products	38	Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks
203	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties	382	Laboratory Apparatus and Analytical, Optical, Measuring, and Controlling Instruments
208	Beverages	3825	Instruments for Measuring and Testing of Electricity and Electrical Signals
22	Textile Mill Products	3826	Laboratory Analytical Instruments
23	Apparel and Other Finished Products Made From Fabrics and Similar Materials	384	Surgical, Medical, and Dental Instruments and Supplies
24	Lumber and Wood Products, Except Furniture	3841	Surgical and Medical Instruments and Apparatus
25	Furniture and Fixtures	3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies
251	Household Furniture	3845	Electromedical and Electrotherapeutic Apparatus
26	Paper and Allied Products	39	Miscellaneous Manufacturing Industries
262	Paper Mills	4	Transportation, Communications, Electric, Gas, and Sanitary Services
265	Paperboard Containers and Boxes	42	Motor Freight Transportation and Warehousing
27	Printing, Publishing, and Allied Industries	4213	Trucking, Except Local
28	Chemicals and Allied Products	45	Transportation By Air
281	Industrial Inorganic Chemicals	451	Air Transportation, Scheduled, and Air Courier
283	Drugs	46	Pipelines, Except Natural Gas
2834	Pharmaceutical Preparations	47	Transportation Services
2835	In Vitro and In Vivo Diagnostic Substances	473	Arrangement Of Transportation Of Freight and Cargo
2836	Biological Products, Except Diagnostic Substances	48	Communications
284	Soap, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	481	Telephone Communications
286	Industrial Organic Chemicals	4812	Radiotelephone Communications
287	Agricultural Chemicals	4813	Telephone Communications, Except Radiotelephone
29	Petroleum Refining and Related Industries	483	Radio and Television Broadcasting Stations
291	Petroleum Refining	4832	Radio Broadcasting Stations
3	Manufacturing	4833	Television Broadcasting Stations
30	Rubber and Miscellaneous Plastics Products	49	Electric, Gas, and Sanitary Services
308	Miscellaneous Plastics Products	491	Electric Services
31	Leather and Leather Products	492	Gas Production and Distribution
32	Stone, Clay, Glass, and Concrete Products	4922	Natural Gas Transmission
33	Primary Metal Industries	4924	Natural Gas Distribution
331	Steel Works, Blast Furnaces, and Rolling and Finishing Mills	493	Combination Electric and Gas, and Other Utility
34	Fabricated Metal Products, Except Machinery and Transportation Equipment	4931	Electric and Other Services Combined
342	Cutlery, Handtools, and General Hardware	494	Water Supply
349	Miscellaneous Fabricated Metal Products	495	Sanitary Services
35	Industrial and Commercial Machinery and Computer Equipment	5	Wholesale Trade & Retail Trade
353	Construction, Mining, and Materials Handling	50	Wholesale Trade-durable Goods
355	Special Industry Machinery, Except Metalworking	504	Professional and Commercial Equipment and Supplies
3559	Special Industry Machinery, Not Elsewhere Classified	5045	Computers and Computer Peripheral Equipment and Software
356	General Industrial Machinery and Equipment	506	Electrical Goods
357	Computer and Office Equipment	51	Wholesale Trade-non-durable Goods
3577	Computer Peripheral Equipment, Not Elsewhere Classified	512	Drugs, Drug Proprietaries, and Druggists' Sundries
36	Electronic and Other Electrical Equipment and Components, Except Computer Equipment	517	Petroleum and Petroleum Products
362	Electrical Industrial Apparatus	53	General Merchandise Stores
3621	Motors and Generators	533	Variety Stores
366	Communications Equipment	54	Food Stores
		541	Grocery Stores

Appendix E: Industry List by SIC Code

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5411	Grocery Stores
55	Automotive Dealers and Gasoline Service Stations
56	Apparel and Accessory Stores
565	Family Clothing Stores
57	Home Furniture, Furnishings, and Equipment Stores
58	Eating and Drinking Places
5812	Eating Places
59	Miscellaneous Retail
594	Miscellaneous Shopping Goods Stores
6	Finance, Insurance, and Real Estate
60	Depository Institutions
602	Commercial Banks
603	Savings Institutions
6035	Savings Institutions, Federally Chartered
6036	Savings Institutions, Not Federally Chartered
61	Non-depository Credit Institutions
614	Personal Credit Institutions
616	Mortgage Bankers and Brokers
6162	Mortgage Bankers and Loan Correspondents
62	Security and Commodity Brokers, Dealers, Exchanges, and Services
621	Security Brokers, Dealers, and Flotation
628	Services Allied With The Exchange Of Securities
63	Insurance Carriers
631	Life Insurance
632	Accident and Health Insurance and Medical
6324	Hospital and Medical Service Plans
633	Fire, Marine, and Casualty Insurance
64	Insurance Agents, Brokers, and Service
65	Real Estate
651	Real Estate Operators (except Developers) and Lessors
653	Real Estate Agents and Managers
67	Holding and Other Investment Offices
6794	Patent Owners and Lessors
6798	Real Estate Investment Trusts
7	Services
70	Hotels, Rooming Houses, Camps, and Other Lodging Places
73	Business Services
735	Miscellaneous Equipment Rental and Leasing
736	Personnel Supply Services
7361	Employment Agencies
7363	Help Supply Services
737	Computer Programming, Data Processing, and Other Computer Related Services
7372	Prepackaged Software
7373	Computer Integrated Systems Design
7374	Computer Processing and Data Preparation and Processing Services
738	Miscellaneous Business Services
79	Amusement and Recreation Services
799	Miscellaneous Amusement and Recreation Services
8	Health Services
80	Health Services
809	Miscellaneous Health and Allied Services, Not
82	Educational Services
87	Engineering, Accounting, Research, Management, and Related Services
874	Management and Public Relations Services

## Appendix F:

### Industry List by Industry Name (alphabetical)

Appendix F is a list of the U.S. industries analyzed in the *2019 Valuation Handbook – U.S. Industry Cost of Capital* (data through December 2019) in alphabetical order.

Appendix F: Industry List by Industry Name (alphabetical)

Accident and Health Insurance and Medical	632	General Merchandise Stores	53
Agricultural Chemicals	287	Grocery Stores	541
Air Transportation, Scheduled, and Air Courier	451	Grocery Stores	5411
Amusement and Recreation Services	79	Health Services	80
Apparel and Accessory Stores	56	Heavy Construction Other Than Building Construction Contractors	16
Apparel and Other Finished Products Made From Fabrics and Similar Materials	23		
Arrangement Of Transportation Of Freight and Cargo	473	Help Supply Services	7363
Automotive Dealers and Gasoline Service Stations	55	Holding and Other Investment Offices	67
Beverages	208	Home Furniture, Furnishings, and Equipment Stores	57
Biological Products, Except Diagnostic Substances	2836	Hospital and Medical Service Plans	6324
Building Construction General Contractors and Operative Builders	15	Hotels, Rooming Houses, Camps, and Other Lodging Places	70
		Household Furniture	251
Business Services	73	In Vitro and In Vivo Diagnostic Substances	2835
Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties	203	Industrial and Commercial Machinery and Computer Equipment	35
Chemicals and Allied Products	28	Industrial Inorganic Chemicals	281
Combination Electric and Gas, and Other Utility	493	Industrial Organic Chemicals	286
Commercial Banks	602	Instruments for Measuring and Testing of Electricity and Electrical Signals	3825
Communications	48	Insurance Agents, Brokers, and Service	64
Communications Equipment	366	Insurance Carriers	63
Computer and Office Equipment	357	Laboratory Analytical Instruments	3826
Computer Integrated Systems Design	7373	Laboratory Apparatus and Analytical, Optical, Measuring, and Controlling Instruments	382
Computer Peripheral Equipment, Not Elsewhere Classified	3577	Leather and Leather Products	31
Computer Processing and Data Preparation and Processing Services	7374	Life Insurance	631
Computer Programming, Data Processing, and Other Computer Related Services	737	Lumber and Wood Products, Except Furniture	24
Computers and Computer Peripheral Equipment and Software	5045	Management and Public Relations Services	874
Construction, Mining, and Materials Handling	353	Manufacturing	2
Crude Petroleum and Natural Gas	131	Manufacturing	3
Cutlery, Handtools, and General Hardware	342	Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks	38
Depository Institutions	60	Meat Products	201
Drugs	283	Mining & Construction	1
Drugs, Drug Proprietaries, and Druggists' Sundries	512	Mining and Quarrying Of Nonmetallic Minerals, Except Fuels	14
Eating and Drinking Places	58	Miscellaneous Amusement and Recreation	799
Eating Places	5812	Miscellaneous Business Services	738
Educational Services	82	Miscellaneous Electrical Machinery, Equipment, and Supplies	369
Electric and Other Services Combined	4931	Miscellaneous Equipment Rental and Leasing	735
Electric Services	491	Miscellaneous Fabricated Metal Products	349
Electric, Gas, and Sanitary Services	49	Miscellaneous Health and Allied Services, Not	809
Electrical Goods	506	Miscellaneous Manufacturing Industries	39
Electrical Industrial Apparatus	362	Miscellaneous Plastics Products	308
Electromedical and Electrotherapeutic Apparatus	3845	Miscellaneous Retail	59
Electronic and Other Electrical Equipment and Components, Except Computer Equipment	36	Miscellaneous Shopping Goods Stores	594
Electronic Components and Accessories	367	Mortgage Bankers and Brokers	616
Employment Agencies	7361	Mortgage Bankers and Loan Correspondents	6162
Engineering, Accounting, Research, Management, and Related Services	87	Motor Freight Transportation and Warehousing	42
Fabricated Metal Products, Except Machinery and Transportation Equipment	34	Motor Vehicle Parts and Accessories	3714
Family Clothing Stores	565	Motor Vehicles and Motor Vehicle Equipment	371
Finance, Insurance, and Real Estate	6	Motors and Generators	3621
Fire, Marine, and Casualty Insurance	633	Natural Gas Distribution	4924
Food and Kindred Products	20	Natural Gas Transmission	4922
Food Stores	54	Non-depository Credit Institutions	61
Furniture and Fixtures	25	Oil and Gas Extraction	13
Gas Production and Distribution	492	Orthopedic, Prosthetic, and Surgical Appliances and Supplies	3842
General Industrial Machinery and Equipment	356	Paper and Allied Products	26
		Paper Mills	262
		Paperboard Containers and Boxes	265
		Patent Owners and Lessors	6794
		Personal Credit Institutions	614

Appendix F: Industry List by Industry Name (alphabetical)

Personnel Supply Services	736
Petroleum and Petroleum Products	517
Petroleum Refining	291
Petroleum Refining and Related Industries	29
Pharmaceutical Preparations	2834
Pipelines, Except Natural Gas	46
Prepackaged Software	7372
Primary Metal Industries	33
Printed Circuit Boards	3672
Printing, Publishing, and Allied Industries	27
Professional and Commercial Equipment and Supplies	504
Radio and Television Broadcasting and Communications Equipment	3663
Radio and Television Broadcasting Stations	483
Radio Broadcasting Stations	4832
Radiotelephone Communications	4812
Real Estate	65
Real Estate Agents and Managers	653
Real Estate Investment Trusts	6798
Real Estate Operators (except Developers) and Lessors	651
Rubber and Miscellaneous Plastics Products	30
Sanitary Services	495
Savings Institutions	603
Savings Institutions, Federally Chartered	6035
Savings Institutions, Not Federally Chartered	6036
Security and Commodity Brokers, Dealers, Exchanges, and Services	62
Security Brokers, Dealers, and Flotation	621
Semiconductors and Related Devices	3674
Services	7
Services	8
Services Allied With The Exchange Of Securities	628
Soap, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	284
Special Industry Machinery, Except Metalworking	355
Special Industry Machinery, Not Elsewhere Classified	3559
Steel Works, Blast Furnaces, and Rolling and Finishing Mills	331
Stone, Clay, Glass, and Concrete Products	32
Surgical and Medical Instruments and Apparatus	3841
Surgical, Medical, and Dental Instruments and Supplies	384
Telephone Communications	481
Telephone Communications, Except Radiotelephone	4813
Television Broadcasting Stations	4833
Textile Mill Products	22
Transportation By Air	45
Transportation Equipment	37
Transportation Services	47
Transportation, Communications, Electric, Gas, and Sanitary Services	4
Trucking, Except Local	4213
Variety Stores	533
Water Supply	494
Wholesale Trade & Retail Trade	5
Wholesale Trade-durable Goods	50
Wholesale Trade-non-durable Goods	51