GLOBAL INDUSTRY CLASSIFICATION STANDARD (GICS®) METHODOLOGY

Guiding Principles and Methodology for GICS

January 2020
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OUTLINE OF THE GICS METHODOLOGY BOOK

This Methodology book primarily provides details on the guidelines used by both MSCI and S&P Dow Jones Indices to assign Global Industry Classification Standard (GICS®) to companies that have issued equity securities.

Section 1 introduces GICS and its philosophy and objectives.

Section 2 details the eligibility for GICS classification.

Section 3 explains the guidelines used by MSCI and S&P Dow Jones Indices to classify companies that have issued equity securities under the GICS framework.

Section 4 details the review of GICS at the company level.

Section 5 explains the GICS Structure Review process undertaken by MSCI and S&P Dow Jones Indices to ensure that the GICS Structure remains relevant and up-to-date.

Section 6 highlights GICS governance policy that includes the GICS Operations Committee, with members from both MSCI and S&P Dow Jones Indices.

Section 7 details the GICS Sub-Industry level definitions.

Section 8 details MSCI’s guidelines for leveraging GICS for the classification of companies that have issued corporate bonds.

This book was published on 7 January 2020.
SECTION 1: INTRODUCTION

In 1999, the Global Industry Classification Standard (GICS) was developed by MSCI in collaboration with S&P Dow Jones Indices to provide an efficient, detailed and flexible tool for use in the investment process. It is designed to respond to the global financial community’s need for a global, accurate, complete and widely accepted approach to defining industries and classifying securities by industry. Its universal approach to industry classification aims to improve transparency and efficiency in the investment process.

The key features of the GICS Structure are that it is:

- Universal: the Structure applies to companies globally.
- Reliable: the Structure correctly reflects the current state of industries in the equity investment universe.
- Flexible: the Structure offers four levels of analysis, ranging from the most general Sector to the most specialized Sub-Industry.
- Evolving: Annual Reviews are conducted by MSCI and S&P Dow Jones Indices to ensure that the Structure remains fully representative of today’s global markets.

The GICS Structure presented in this document is the latest Structure post our recent major reviews that included the creation of a new Sector for Real Estate that was carved out from the Financials Sector and transformation of the Telecommunication Services Sector as the Communication Services Sector.

11 Sectors

24 Industry Groups

69 Industries

158 Sub-Industries
1.1 OVERVIEW OF GICS

To provide the level of precision critical in the investment process, the GICS is designed with four levels of classifications that includes 11 Sectors, 24 Industry Groups, 69 Industries, and 158 Sub-Industries.

The GICS has 11 Sector classifications:

- Energy
- Materials
- Industrials
- Consumer Discretionary
- Consumer Staples
- Health Care
- Financials
- Information Technology
- Communication Services
- Utilities
- Real Estate

GICS classifications can be presented in either text or numeric formats. The complete GICS classification for each company is an 8-digit code with text description. The hierarchical design of the 8-digit coding system allows for easy transition between GICS tiers.

Definitions of GICS Sub-Industries are provided in Section 7.
1.2 The GICS® structure

### 10 Energy

1010 Energy

- **1010** Energy Equipment & Services
  - 101010 Oil & Gas Drilling
  - 101020 Oil & Gas Equipment & Services

- **101020** Oil, Gas & Consumable Fuels
  - 10102010 Integrated Oil & Gas
  - 10102020 Oil & Gas Exploration & Production
  - 10102030 Oil & Gas Refining & Marketing
  - 10102040 Oil & Gas Storage & Transportation
  - 10102050 Coal & Consumable Fuels

### 15 Materials

1510 Materials

- **151010** Chemicals
  - 15101010 Commodity Chemicals
  - 15101020 Diversified Chemicals
  - 15101030 Fertilizers & Agricultural Chemicals
  - 15101040 Industrial Gases
  - 15101050 Specialty Chemicals

- **151020** Construction Materials
  - 15102010 Construction Materials

- **151030** Containers & Packaging
  - 15103010 Metal & Glass Containers
  - 15103020 Paper Packaging

- **151040** Metals & Mining
  - 15104010 Aluminum
  - 15104020 Diversified Metals & Mining
  - 15104025 Copper
  - 15104030 Gold
  - 15104040 Precious Metals & Minerals
  - 15104045 Silver
  - 15104050 Steel

- **151050** Paper & Forest Products
  - 15105010 Forest Products
  - 15105020 Paper Products

### 20 Industrials

#### 2010 Capital goods

- **201010** Aerospace & Defense
  - 20101010 Aerospace & Defense

- **201020** Building Products
  - 20102010 Building Products

- **201030** Construction & Engineering
  - 20103010 Construction & Engineering

- **201040** Electrical Equipment
  - 20104010 Electrical Components & Equipment
  - 20104020 Heavy Electrical Equipment

- **201050** Industrial Conglomerates
  - 20105010 Industrial Conglomerates

- **201060** Machinery
  - 20106010 Construction Machinery & Heavy Trucks
  - 20106015 Agricultural & Farm Machinery
  - 20106020 Industrial Machinery

- **201070** Trading Companies & Distributors
  - 20107010 Trading Companies & Distributors

#### 2020 Commercial & Professional Services

- **202010** Commercial Services & Supplies
  - 20201010 Commercial Printing
  - 20201050 Environmental & Facilities Services
  - 20201060 Office Services & Supplies
  - 20201070 Diversified Support Services
  - 20201080 Security & Alarm Services

- **202020** Professional Services
  - 20202010 Human Resource & Employment Services
  - 20202020 Research & Consulting Services

#### 2030 Transportation

- **203010** Air Freight & Logistics
  - 20301010 Air Freight & Logistics

- **203020** Airlines
  - 20302010 Airlines

- **203030** Marine
  - 20303010 Marine

- **203040** Road & Rail
  - 20304010 Railroads
  - 20304020 Trucking

- **203050** Transportation Infrastructure
  - 20305010 Airport Services
  - 20305020 Highways & Railtracks
  - 20305030 Marine Ports & Services
### 25 Consumer Discretionary

**2510 Automobiles & Components**

- 251010 Auto Components
  - 25101010 Auto Parts & Equipment
  - 25101020 Tires & Rubber
- 251020 Automobiles
  - 25102010 Automobile Manufacturers
  - 25102020 Motorcycle Manufacturers

**2520 Consumer Durables & Apparel**

- 252010 Household Durables
  - 25201010 Consumer Electronics
  - 25201020 Home Furnishings
  - 25201030 Homebuilding
  - 25201040 Household Appliances
  - 25201050 Housewares & Specialties
- 252020 Leisure Products
  - 25202010 Leisure Products
- 252030 Textiles, Apparel & Luxury Goods
  - 25203010 Apparel, Accessories & Luxury Goods
  - 25203020 Footwear
  - 25203030 Textiles

**2530 Consumer Services**

- 253010 Hotels, Restaurants & Leisure
  - 25301010 Casinos & Gaming
  - 25301020 Hotels, Resorts & Cruise Lines
  - 25301030 Leisure Facilities
  - 25301040 Restaurants
- 253020 Diversified Consumer Services
  - 25302010 Education Services
  - 25302020 Specialized Consumer Services

### 30 Consumer Staples

**3010 Food & Staples Retailing**

- 301010 Food & Staples Retailing
  - 30101010 Drug Retail
  - 30101020 Food Distributors
  - 30101030 Food Retail
  - 30101040 Hypermarkets & Super Centers

**3020 Food, Beverage & Tobacco**

- 302010 Beverages
  - 30201010 Brewers
  - 30201020 Distillers & Vintners
  - 30201030 Soft Drinks
- 302020 Food Products
  - 30202010 Agricultural Products
  - 30202030 Packaged Foods & Meats
- 302030 Tobacco
  - 30203010 Tobacco

**3030 Household & Personal Products**

- 303010 Household Products
  - 30301010 Household Products
- 303020 Personal Products
  - 30302010 Personal Products

### 35 Health Care

**3510 Health Care Equipment & Services**

- 351010 Health Care Equipment & Supplies
  - 35101010 Health Care Equipment
  - 35101020 Health Care Supplies
- 351020 Health Care Providers & Services
  - 35102010 Health Care Distributors
  - 35102015 Health Care Services
- 351030 Health Care Technology
  - 35103010 Health Care Technology

**3520 Pharmaceuticals, Biotechnology & Life Sciences**

- 352010 Biotechnology
  - 35201010 Biotechnology
- 352020 Pharmaceuticals
  - 35202010 Pharmaceuticals
- 352030 Life Sciences Tools & Services
  - 35203010 Life Sciences Tools & Services
40 Financials

4010 Banks
- 401010 Diversified Banks
- 40101015 Regional Banks
- 401020 Thrifts & Mortgage Finance
  - 40102010 Thrifts & Mortgage Finance

4020 Diversified Financials
- 402010 Diversified Financial Services
  - 40201020 Other Diversified Financial Services
  - 40201030 Multi-Sector Holdings
  - 40201040 Specialized Finance
- 402020 Consumer Finance
- 402030 Capital Markets
  - 40203010 Asset Management & Custody Banks
  - 40203020 Investment Banking & Brokerage
  - 40203030 Diversified Capital Markets
  - 40203040 Financial Exchanges & Data
- 402040 Mortgage Real Estate Investment Trusts (REITs)
  - 40204010 Mortgage REITs

4030 Insurance
- 403010 Insurance
  - 40301010 Insurance Brokers
  - 40301020 Life & Health Insurance
  - 40301030 Multi-line Insurance
  - 40301040 Property & Casualty Insurance
  - 40301050 Reinsurance

45 Information Technology

4510 Software & Services
- 451020 IT Services
  - 45102010 IT Consulting & Other Services
  - 45102020 Data Processing & Outsourced Services
  - 45102030 Internet Services & Infrastructure
- 451030 Software
  - 45103010 Application Software
  - 45103020 Systems Software

4520 Technology Hardware & Equipment
- 452010 Communications Equipment
- 452020 Technology Hardware, Storage & Peripherals
  - 45202030 Technology Hardware, Storage & Peripherals
- 452030 Electronic Equipment, Instruments & Components
  - 45203010 Electronic Equipment & Instruments
  - 45203015 Electronic Components
  - 45203020 Electronic Manufacturing Services
  - 45203030 Technology Distributors

4530 Semiconductors & Semiconductor Equipment
- 453010 Semiconductors & Semiconductor Equipment
  - 45301010 Semiconductor Equipment
  - 45301020 Semiconductors

50 Communication Services

5010 Telecommunication Services
- 501010 Diversified Telecommunication Services
  - 50101010 Alternative Carriers
  - 501020 Integrated Telecommunication Services
- 501020 Wireless Telecommunication Services
  - 50102010 Wireless Telecommunication Services

5020 Media & Entertainment
- 502010 Media
  - 50201010 Advertising
  - 50201020 Broadcasting
  - 50201030 Cable & Satellite
  - 50201040 Publishing
- 502020 Entertainment
  - 50202010 Movies & Entertainment
  - 50202020 Interactive Home Entertainment
- 502030 Interactive Media & Services
  - 50203010 Interactive Media & Services

55 Utilities

5510 Utilities
- 551010 Electric Utilities
  - 55101010 Electric Utilities
- 551020 Gas Utilities
  - 55102010 Gas Utilities
- 551030 Multi-Utilities
  - 55103010 Multi-Utilities
- 551040 Water Utilities
  - 55104010 Water Utilities
- 551050 Independent Power and Renewable Electricity Producers
  - 55105010 Independent Power Producers & Energy Traders
  - 55105020 Renewable Electricity
60 Real Estate

6010 Real Estate

601010 Equity Real Estate Investment Trusts (REITs)
   60101010 Diversified REITs
   60101020 Industrial REITs
   60101030 Hotel & Resort REITs
   60101040 Office REITs
   60101050 Health Care REITs
   60101060 Residential REITs
   60101070 Retail REITs
   60101080 Specialized REITs

601020 Real Estate Management & Development
   60102010 Diversified Real Estate Activities
   60102020 Real Estate Operating Companies
   60102030 Real Estate Development
   60102040 Real Estate Services
1.3 PHILOSOPHY AND OBJECTIVES OF GICS

The way in which securities are classified into asset classes forms the basis of many important investment decisions. The relative merits of each security are judged primarily within these asset classes, and investment decisions are taken within this framework.

APPROACHES TO INDUSTRY CLASSIFICATION SCHEMES

Grouping companies based on industries is not a relatively straightforward task as multiple factors need to be evaluated in determining the classification that aptly reflects the business model of the company as well as adds value to the investment process. There are many approaches to developing industry classification schemes, some of which are discussed below.

At one extreme is the purely statistical approach, which is solely financial market-based and backward looking, using past returns. Aggregations are formed around correlation, often yielding non-intuitive groupings that are dissimilar across countries and regions. Another approach attempts to define a priori financial market-oriented groups or themes, such as cyclical, interest rate sensitive, etc. The difficulty, however, lies in finding widely accepted and relatively stable definitions for these themes.

Two other approaches begin with an economic perspective on companies. The first focuses on a production orientation while the other adopts a market or demand orientation in company analysis. The production-oriented approach was effective in the past in its analysis of the microstructure of industries from the producers’ standpoint. For instance, it segregated goods and services on the premise that it was a different set of companies that provided each to consumers. As the structure of the global economy evolved, limitations of this approach became increasingly obvious. The ever-increasing share of discretionary income brought about by economic development, emergence of the service era, and the availability and accessibility of information with the advent of new communication technology has moved the emphasis from producers to consumers.
THE GICS: MARKET DEMAND-ORIENTED

The Global Industry Classification Standard is designed to be market demand-oriented in its analysis and classification of companies. For example, drawing the line between goods and services is becoming increasingly arbitrary as they are now commonly sold together. This distinction between goods and services is replaced by adopting the more market-oriented Sectors of “Consumer Discretionary” and “Consumer Staples”, which group goods and services Sub-Industries.

In addition, the creation of large stand-alone Sectors such as Health Care, Information Technology and Communication Services accurately represents industries that provide significant value to the consumer in today’s global and integrated economy. This further contributes to a more uniform distribution of weights among the 11 GICS Sectors.
SECTION 2: COMPANIES ELIGIBLE FOR GICS CLASSIFICATION

Companies that have issued equity securities are eligible for a GICS classification.

If a company’s subsidiary files separate financials to its reporting government agency, that subsidiary is considered a separate entity and classified independently under the GICS Methodology.

GICS is not assigned to supranationals, municipals, sovereigns, shell companies, mutual funds, or exchange traded funds.
SECTION 3: GUIDELINES FOR GICS CLASSIFICATION

The GICS is strictly hierarchical and thus a company can only belong to one grouping at each of the four levels.

3.1 CLASSIFICATION BY REVENUE AND EARNINGS

In order to provide an accurate, complete and long-term view of the global investment universe, a company’s revenues often provide a more stable and precise reflection of its activities than earnings. Furthermore, industrial and geographical breakdowns of revenues are more commonly available than earnings broken down the same way for most companies. Nevertheless, company valuations are more closely related to earnings than revenues. Therefore, earnings remain an important secondary consideration in a company’s Industry Classification. In addition to revenue and earnings, market perception is also recognized as relevant for classification purposes.

As a general rule, a company is classified in the Sub-Industry whose definition most closely describes the business activities that generate more than 60% of the company’s revenues.

Example: Amazon.com, Inc.

<table>
<thead>
<tr>
<th>2018 Fiscal year</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online stores (Internet retail)</td>
<td>54%</td>
</tr>
<tr>
<td>Physical stores</td>
<td>7%</td>
</tr>
<tr>
<td>Third-party seller services (Internet retail)</td>
<td>18%</td>
</tr>
<tr>
<td>Subscription services</td>
<td>6%</td>
</tr>
<tr>
<td>Amazon Web Services</td>
<td>11%</td>
</tr>
<tr>
<td>Sales of advertising services</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GICS level</th>
<th>GICS code</th>
<th>GICS description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>25</td>
<td>Consumer Discretionary</td>
</tr>
<tr>
<td>Industry Group</td>
<td>2550</td>
<td>Retailing</td>
</tr>
<tr>
<td>Industry</td>
<td>255020</td>
<td>Internet &amp; Direct Marketing Retail</td>
</tr>
<tr>
<td>Sub-Industry</td>
<td>25502020</td>
<td>Internet &amp; Direct Marketing Retail</td>
</tr>
</tbody>
</table>
However, a company engaged in two or more substantially different business activities, none of which contribute 60% or more of revenues, is classified in the Sub-Industry that provides the majority of both the company’s revenues and earnings. When no Sub-Industry provides the majority of both the company’s revenues and earnings, the classification will be determined based on further research and analysis.

In addition, a company significantly diversified across three or more Sectors, none of which contributes the majority of revenues or earnings, is classified either in the Industrial Conglomerates Sub-Industry (Industrial Sector) or in the Multi-Sector Holdings Sub-Industry (Financials Sector).

Example: General Electric (US)

<table>
<thead>
<tr>
<th>2018 Fiscal Year</th>
<th>Power</th>
<th>Renewable Energy</th>
<th>Aviation</th>
<th>Oil &amp; Gas</th>
<th>Healthcare</th>
<th>Transportation</th>
<th>Lighting</th>
<th>Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>22%</td>
<td>8%</td>
<td>24%</td>
<td>18%</td>
<td>16%</td>
<td>3%</td>
<td>1%</td>
<td>8%</td>
</tr>
<tr>
<td>Earnings</td>
<td>-8%</td>
<td>3%</td>
<td>63%</td>
<td>4%</td>
<td>36%</td>
<td>6%</td>
<td>1%</td>
<td>-5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GICS level</th>
<th>GICS code</th>
<th>GICS description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>20</td>
<td>Industrials</td>
</tr>
<tr>
<td>Industry Group</td>
<td>2010</td>
<td>Capital Goods</td>
</tr>
<tr>
<td>Industry</td>
<td>201050</td>
<td>Industrial Conglomerates</td>
</tr>
<tr>
<td>Sub-Industry</td>
<td>20105010</td>
<td>Industrial Conglomerates</td>
</tr>
</tbody>
</table>

3.2: PROPAGATION OF GICS FROM COMPANY LEVEL TO SECURITY LEVEL

GICS is assigned at the company level. Thus, all equity securities including ADRs and GDRs issued by a company have the same classification as the company.

A tracking stock issued by a parent company is classified based on its underlying business.
3.3: SOURCE OF INFORMATION USED FOR GICS CLASSIFICATION

The primary source of information used for classification is a company’s annual reports and accounts. Other sources include broker reports and other published research literature. In the case of a new issue, the classification will be based primarily on the description of the company’s activities and pro forma results as given in the prospectus.
SECTION 4: REVIEW OF GICS CLASSIFICATION

A company’s Sub-Industry classification will be reviewed either when a significant corporate restructuring occurs or when a new annual report is available. GICS reviews also occur upon client request.

In order to provide a stable Sub-Industry classification, when reviewing a company’s classification, changes will be minimized in the Sub-Industry classification to the extent possible by disregarding temporary fluctuations in the results of a company’s different activities.
SECTION 5: GICS STRUCTURE REVIEW

MSCI and S&P Dow Jones Indices are committed to ensuring that the GICS Structure remains relevant and up-to-date. This is accomplished through an Annual Review of the Structure. This Review includes a detailed internal analysis to develop a proposal for potential structural changes and public request for comments and in-depth client consultations with various market participants as a means of obtaining feedback on proposed structural changes.

Further information on changes to the GICS Structure can be found on MSCI’s website at www.msci.com/gics.
SECTION 6: GICS GOVERNANCE BY MSCI AND S&P DOW JONES INDICES

The GICS Methodology and Structure fall under the overall supervision of the GICS Operations Committee, with members from both MSCI and S&P Dow Jones Indices. The Committee will consult with the financial markets community as needed in order to keep the Methodology current and relevant.

MSCI and S&P Dow Jones Indices consider information about changes to the GICS Structure and related matters to be potentially price sensitive. Therefore, all Committee discussions are confidential.
SECTION 7: GICS SUB-INDUSTRY DEFINITIONS

Energy

ENERGY

- Drilling contractors or owners of drilling rigs that contract their services for drilling wells.
- Manufacturers of equipment, including drilling rigs and equipment, and providers of supplies and services to companies involved in the drilling, evaluation and completion of oil and gas wells.
- Integrated oil companies engaged in the exploration & production of oil and gas, as well as at least one other significant activity in either refining, marketing and transportation, or chemicals.
- Companies engaged in the exploration and production of oil and gas not classified elsewhere.
- Companies engaged in the refining and marketing of oil, gas and/or refined products not classified in the Integrated Oil & Gas or Independent Power Producers & Energy Traders Sub-Industries.
- Companies engaged in the storage and/or transportation of oil, gas and/or refined products. Includes diversified midstream natural gas companies, oil and refined product pipelines, coal slurry pipelines and oil & gas shipping companies.
- Companies primarily involved in the production and mining of coal, related products and other consumable fuels related to the generation of energy. Excludes companies primarily producing gases classified in the Industrial Gases Sub-Industry and companies primarily mining for metallurgical (coking) coal used for steel production.

101010
Energy Equipment & Services

- 10101010 Oil & Gas Drilling
- 10101020 Oil & Gas Equipment & Services

101020
Oil, Gas & Consumable Fuels

- 10102010 Integrated Oil & Gas
- 10102020 Oil & Gas Exploration & Production
- 10102030 Oil & Gas Refining & Marketing
- 10102040 Oil & Gas Storage & Transportation
- 10102050 Coal & Consumable Fuels
## Materials

### MATERIALS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>151010</td>
<td><strong>Chemicals</strong></td>
</tr>
<tr>
<td>15101010</td>
<td>Commodity Chemicals</td>
</tr>
<tr>
<td>15101020</td>
<td>Diversified Chemicals</td>
</tr>
<tr>
<td>15101030</td>
<td>Fertilizers &amp; Agricultural Chemicals</td>
</tr>
<tr>
<td>15101040</td>
<td>Industrial Gases</td>
</tr>
<tr>
<td>15101050</td>
<td>Specialty Chemicals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>151020</td>
<td><strong>Construction Materials</strong></td>
</tr>
<tr>
<td>15102010</td>
<td>Construction Materials</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>151030</td>
<td><strong>Containers &amp; Packaging</strong></td>
</tr>
<tr>
<td>15103010</td>
<td>Metal &amp; Glass Containers</td>
</tr>
<tr>
<td>15103020</td>
<td>Paper Packaging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>151040</td>
<td><strong>Metals &amp; Mining</strong></td>
</tr>
<tr>
<td>15104010</td>
<td>Aluminum</td>
</tr>
<tr>
<td>15104020</td>
<td>Diversified Metals &amp; Mining</td>
</tr>
<tr>
<td>15104025</td>
<td>Copper</td>
</tr>
</tbody>
</table>

- **Commodity Chemicals**: Companies that primarily produce industrial chemicals and basic chemicals. Including but not limited to plastics, synthetic fibers, films, commodity-based paints & pigments, explosives and petrochemicals. Excludes chemical companies classified in the Diversified Chemicals, Fertilizers & Agricultural Chemicals, Industrial Gases, or Specialty Chemicals Sub-Industries.

- **Diversified Chemicals**: Manufacturers of a diversified range of chemical products not classified in the Industrial Gases, Commodity Chemicals, Specialty Chemicals or Fertilizers & Agricultural Chemicals Sub-Industries.

- **Fertilizers & Agricultural Chemicals**: Producers of fertilizers, pesticides, potash or other agriculture-related chemicals not classified elsewhere.

- **Industrial Gases**: Manufacturers of industrial gases.

- **Specialty Chemicals**: Companies that primarily produce high value-added chemicals used in the manufacture of a wide variety of products, including but not limited to fine chemicals, additives, advanced polymers, adhesives, sealants and specialty paints, pigments and coatings.

- **Construction Materials**: Manufacturers of construction materials including sand, clay, gypsum, lime, aggregates, cement, concrete and bricks. Other finished or semi-finished building materials are classified in the Building Products Sub-Industry.

- **Metal & Glass Containers**: Manufacturers of metal, glass or plastic containers. Includes corks and caps.

- **Paper Packaging**: Manufacturers of paper and cardboard containers and packaging.

- **Aluminum**: Producers of aluminum and related products, including companies that mine or process bauxite and companies that recycle aluminum to produce finished or semi-finished products. Excludes companies that primarily produce aluminum building materials classified in the Building Products Sub-Industry.

- **Diversified Metals & Mining**: Companies engaged in the diversified production or extraction of metals and minerals not classified elsewhere. Including, but not limited to, nonferrous metal mining (except bauxite), salt and borate mining, phosphate rock mining, and diversified mining operations. Excludes iron ore mining, classified in the Steel Sub-Industry, bauxite mining, classified in the Aluminum Sub-Industry, and coal mining, classified in either the Steel or Coal & Consumable Fuels Sub-Industries.

- **Copper**: Companies involved primarily in copper ore mining.
## Materials continued

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15104030</td>
<td>Gold</td>
</tr>
<tr>
<td>15104040</td>
<td>Precious Metals &amp; Minerals. Companies mining precious metals and minerals not classified in the Gold Sub-Industry. Includes companies primarily mining platinum.</td>
</tr>
<tr>
<td>15104045</td>
<td>Silver. Companies primarily mining silver. Excludes companies classified in the Gold or Precious Metals &amp; Minerals Sub-Industries.</td>
</tr>
<tr>
<td>15104050</td>
<td>Steel. Producers of iron and steel and related products, including metallurgical (coking) coal mining used for steel production.</td>
</tr>
<tr>
<td>15105010</td>
<td>Forest Products. Manufacturers of timber and related wood products. Includes lumber for the building industry.</td>
</tr>
</tbody>
</table>
### Industrials

**CAPITAL GOODS**

<table>
<thead>
<tr>
<th>Sector Code</th>
<th>Sector Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>201010</td>
<td>Aerospace &amp; Defense</td>
<td>Manufacturers of civil or military aerospace and defense equipment, parts or products. Includes defense electronics and space equipment.</td>
</tr>
<tr>
<td>201020</td>
<td>Building Products</td>
<td>Manufacturers of building components and home improvement products and equipment. Excludes lumber and plywood classified under Forest Products and cement and other materials classified in the Construction Materials Sub-Industry.</td>
</tr>
<tr>
<td>201030</td>
<td>Construction &amp; Engineering</td>
<td>Companies engaged in primarily non-residential construction. Includes civil engineering companies and large-scale contractors. Excludes companies classified in the Homebuilding Sub-Industry.</td>
</tr>
<tr>
<td>201040</td>
<td>Electrical Components &amp; Equipment</td>
<td>Companies that produce electric cables and wires, electrical components or equipment not classified in the Heavy Electrical Equipment Sub-Industry.</td>
</tr>
<tr>
<td></td>
<td>Heavy Electrical Equipment</td>
<td>Manufacturers of power-generating equipment and other heavy electrical equipment, including power turbines, heavy electrical machinery intended for fixed-use and large electrical systems. Excludes cables and wires, classified in the Electrical Components &amp; Equipment Sub-Industry.</td>
</tr>
<tr>
<td>201050</td>
<td>Industrial Conglomerates</td>
<td>Diversified industrial companies with business activities in three or more Sectors, none of which contributes a majority of revenues. Stakes held are predominantly of a controlling nature and stake holders maintain an operational interest in the running of the subsidiaries.</td>
</tr>
<tr>
<td>201060</td>
<td>Construction Machinery &amp; Heavy Trucks</td>
<td>Manufacturers of heavy duty trucks, rolling machinery, earth-moving and construction equipment, and manufacturers of related parts. Includes non-military shipbuilding.</td>
</tr>
<tr>
<td>201040</td>
<td>Agricultural &amp; Farm Machinery</td>
<td>Companies manufacturing agricultural machinery, farm machinery, and their related parts. Includes machinery used for the production of crops and agricultural livestock, agricultural tractors, planting and fertilizing machinery, fertilizer and chemical application equipment, and grain dryers and blowers.</td>
</tr>
<tr>
<td></td>
<td>Industrial Machinery</td>
<td>Manufacturers of industrial machinery and industrial components. Includes companies that manufacture presses, machine tools, compressors, pollution control equipment, elevators, escalators, insulators, pumps, roller bearings and other metal fabrications.</td>
</tr>
<tr>
<td>201070</td>
<td>Trading Companies &amp; Distributors</td>
<td>Trading companies and other distributors of industrial equipment and products.</td>
</tr>
</tbody>
</table>
Industrials continued

COMMERCIAL & PROFESSIONAL SERVICES

- **20201010 Commercial Printing**
  Companies providing commercial printing services. Includes printers primarily serving the media industry.

- **20201050 Environmental & Facilities Services**
  Companies providing environmental and facilities maintenance services. Includes waste management, facilities management and pollution control services. Excludes large-scale water treatment systems classified in the Water Utilities Sub-Industry.

- **20201060 Office Services & Supplies**
  Providers of office services and manufacturers of office supplies and equipment not classified elsewhere.

- **20201070 Diversified Support Services**
  Companies primarily providing labor oriented support services to businesses and governments. Includes commercial cleaning services, dining & catering services, equipment repair services, industrial maintenance services, industrial auctioneers, storage & warehousing, transaction services, uniform rental services, and other business support services.

- **20201080 Security & Alarm Services**
  Companies providing security and protection services to business and governments. Includes companies providing services such as correctional facilities, security & alarm services, armored transportation & guarding. Excludes companies providing security software classified under the Systems Software Sub-Industry and home security services classified under the Specialized Consumer Services Sub-Industry. Also excludes companies manufacturing security system equipment classified under the Electronic Equipment & Instruments Sub-Industry.

- **20202010 Human Resource & Employment Services**
  Companies providing business support services relating to human capital management. Includes employment agencies, employee training, payroll & benefit support services, retirement support services and temporary agencies.

- **20202020 Research & Consulting Services**
  Companies primarily providing research and consulting services to businesses and governments not classified elsewhere. Includes companies involved in management consulting services, architectural design, business information or scientific research, marketing, and testing & certification services. Excludes companies providing information technology consulting services classified in the IT Consulting & Other Services Sub-Industry.
### Industrinals continued

**TRANSPORTATION**

<table>
<thead>
<tr>
<th>Code</th>
<th>Industry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>203010</td>
<td>Air Freight &amp; Logistics</td>
<td>Companies providing air freight transportation, courier and logistics services, including package and mail delivery and customs agents. Excludes those companies classified in the Airlines, Marine or Trucking Sub-Industries.</td>
</tr>
<tr>
<td>203020</td>
<td>Airlines</td>
<td>Companies providing primarily passenger air transportation.</td>
</tr>
<tr>
<td>203030</td>
<td>Marine</td>
<td>Companies providing goods or passenger maritime transportation. Excludes cruise-ships classified in the Hotels, Resorts &amp; Cruise Lines Sub-Industry.</td>
</tr>
<tr>
<td>203040</td>
<td>Railroads</td>
<td>Companies providing primarily goods and passenger rail transportation.</td>
</tr>
<tr>
<td>203050</td>
<td>Highways &amp; Railtracks</td>
<td>Companies providing primarily goods and passenger land transportation. Includes vehicle rental and taxi companies.</td>
</tr>
<tr>
<td>203050</td>
<td>Airport Services</td>
<td>Operators of airports and companies providing related services.</td>
</tr>
<tr>
<td>203050</td>
<td>Marine Ports &amp; Services</td>
<td>Owners and operators of marine ports and related services.</td>
</tr>
</tbody>
</table>
Consumer Discretionary

AUTOMOBILES & COMPONENTS

251010
Auto Components

25101010
Auto Parts & Equipment

Manufacturers of parts and accessories for automobiles and motorcycles. Excludes companies classified in the Tires & Rubber Sub-Industry.

25101020
Tires & Rubber

Manufacturers of tires and rubber.

251020
Automobile Manufacturers

25102010
Automobile Manufacturers

Companies that produce mainly passenger automobiles and light trucks. Excludes companies producing mainly motorcycles and three-wheelers classified in the Motorcycle Manufacturers Sub-Industry and heavy duty trucks classified in the Construction Machinery & Heavy Trucks Sub-Industry.

25102020
Motorcycle Manufacturers

Companies that produce motorcycles, scooters or three-wheelers. Excludes bicycles classified in the Leisure Products Sub-Industry.

CONSUMER DURABLES & APPAREL

252010
Household Durables

25201010
Consumer Electronics

Manufacturers of consumer electronics products including TVs, home audio equipment, game consoles, digital cameras, and related products. Excludes personal home computer manufacturers classified in the Technology Hardware, Storage & Peripherals Sub-Industry, and electric household appliances classified in the Household Appliances Sub-Industry.

25201020
Home Furnishings

Manufacturers of soft home furnishings or furniture, including upholstery, carpets and wall-coverings.

25201030
Homebuilding

Residential construction companies. Includes manufacturers of prefabricated houses and semi-fixed manufactured homes.

25201040
Household Appliances

Manufacturers of electric household appliances and related products. Includes manufacturers of power and hand tools, including garden improvement tools. Excludes TVs and other audio and video products classified in the Consumer Electronics Sub-Industry and personal computers classified in the Technology Hardware, Storage & Peripherals Sub-Industry.

25201050
Housewares & Specialties

Manufacturers of durable household products, including cutlery, cookware, glassware, crystal, silverware, utensils, kitchenware and consumer specialties not classified elsewhere.
### Consumer Discretionary continued

<table>
<thead>
<tr>
<th>Sub-Industry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>252020 Leisure Products</td>
<td>Manufacturers of leisure products and equipment including sports equipment, bicycles and toys.</td>
</tr>
<tr>
<td>25202010 Leisure Products</td>
<td></td>
</tr>
<tr>
<td>252030 Textiles, Apparel &amp; Luxury Goods</td>
<td></td>
</tr>
<tr>
<td>25203010 Apparel, Accessories &amp; Luxury Goods</td>
<td>Manufacturers of apparel, accessories &amp; luxury goods. Includes companies primarily producing designer handbags, wallets, luggage, jewelry and watches. Excludes shoes classified in the Footwear Sub-Industry.</td>
</tr>
<tr>
<td>25203020 Footwear</td>
<td>Manufacturers of footwear. Includes sport and leather shoes.</td>
</tr>
<tr>
<td>25203030 Textiles</td>
<td>Manufacturers of textile and related products not classified in the Apparel, Accessories &amp; Luxury Goods, Footwear or Home Furnishings Sub-Industries.</td>
</tr>
<tr>
<td>253010 Hotels, Restaurants &amp; Leisure</td>
<td>Owners and operators of casinos and gaming facilities. Includes companies providing lottery and betting services.</td>
</tr>
<tr>
<td>25301010 Casinos &amp; Gaming</td>
<td></td>
</tr>
<tr>
<td>25301020 Hotels, Resorts &amp; Cruise Lines</td>
<td>Owners and operators of hotels, resorts and cruise-ships. Includes travel agencies, tour operators and related services not classified elsewhere. Excludes casino-hotels classified in the Casinos &amp; Gaming Sub-Industry.</td>
</tr>
<tr>
<td>25301030 Leisure Facilities</td>
<td>Owners and operators of leisure facilities, including sport and fitness centers, stadiums, golf courses and amusement parks not classified in the Movies &amp; Entertainment Sub-Industry.</td>
</tr>
<tr>
<td>25301040 Restaurants</td>
<td>Owners and operators of restaurants, bars, pubs, fast-food or take-out facilities. Includes companies that provide food catering services.</td>
</tr>
<tr>
<td>253020 Diversified Consumer Services</td>
<td>Companies providing educational services, either on-line or through conventional teaching methods. Includes, private universities, correspondence teaching, providers of educational seminars, educational materials and technical education. Excludes companies providing employee education programs classified in the Human Resources &amp; Employment Services Sub-Industry.</td>
</tr>
<tr>
<td>25302010 Education Services</td>
<td>Companies providing consumer services not classified elsewhere. Includes residential services, home security, legal services, personal services, renovation &amp; interior design services, consumer auctions and wedding &amp; funeral services.</td>
</tr>
<tr>
<td>25302020 Specialized Consumer Services</td>
<td></td>
</tr>
</tbody>
</table>

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Consumer Discretionary continued

RETAILING

255010 Distributors

- Distributors and wholesalers of general merchandise not classified elsewhere. Includes vehicle distributors.

255020 Internet & Direct Marketing Retail

- Companies providing retail services primarily on the Internet, through mail order, and TV home shopping retailers. Also includes companies providing online marketplaces for consumer products and services.

255030 Multiline Retail

- Owners and operators of department stores.

- Owners and operators of stores offering diversified general merchandise. Excludes hypermarkets and large-scale super centers classified in the Hypermarkets & Super Centers Sub-Industry.

255040 Specialty Retail

- Retailers specialized mainly in apparel and accessories.

- Owners and operators of consumer electronics, computers, video and related products retail stores.

- Owners and operators of home and garden improvement retail stores. Includes stores offering building materials and supplies.

- Owners and operators of specialty retail stores not classified elsewhere. Includes jewelry stores, toy stores, office supply stores, health & vision care stores, and book & entertainment stores.

- Owners and operators of stores specializing in automotive retail. Includes auto dealers, gas stations, and retailers of auto accessories, motorcycles & parts, automotive glass, and automotive equipment & parts.

- Owners and operators of furniture and home furnishings retail stores. Includes residential furniture, home furnishings, housewares, and interior design. Excludes home and garden improvement stores, classified in the Home Improvement Retail Sub-Industry.
### Consumer Staples

#### FOOD & STAPLES RETAILING

- **301010** Drug Retail

  Owners and operators of primarily drug retail stores and pharmacies.

- **301010** Food Distributors

  Distributors of food products to other companies and not directly to the consumer.

- **301010** Food Retail

  Owners and operators of primarily food retail stores.

- **301040** Hypermarkets & Super Centers

  Owners and operators of hypermarkets and super centers selling food and a wide-range of consumer staple products. Excludes Food and Drug Retailers classified in the Food Retail and Drug Retail Sub-Industries, respectively.

### FOOD, BEVERAGE & TOBACCO

- **302010** Brewers

  Producers of beer and malt liquors. Includes breweries not classified in the Restaurants Sub-Industry.

- **302010** Distillers & Vintners

  Distillers, vintners and producers of alcoholic beverages not classified in the Brewers Sub-Industry.

- **302010** Soft Drinks

  Producers of non-alcoholic beverages including mineral waters. Excludes producers of milk classified in the Packaged Foods Sub-Industry.

- **302010** Agricultural Products

  Producers of agricultural products. Includes crop growers, owners of plantations and companies that produce and process foods but do not package and market them. Excludes companies classified in the Forest Products Sub-Industry and those that package and market the food products classified in the Packaged Foods Sub-Industry.

- **302020** Packaged Foods & Meats

  Producers of packaged foods including dairy products, fruit juices, meats, poultry, fish and pet foods.

- **302030** Tobacco

  Manufacturers of cigarettes and other tobacco products.
Consumer Staples continued

**HOUSEHOLD & PERSONAL PRODUCTS**

<table>
<thead>
<tr>
<th>Code</th>
<th>Industry Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>303010</td>
<td>Household Products</td>
</tr>
<tr>
<td>30301010</td>
<td>Producers of non-durable household products, including detergents, soaps, diapers and other tissue and household paper products not classified in the Paper Products Sub-Industry.</td>
</tr>
<tr>
<td>303020</td>
<td>Personal Products</td>
</tr>
<tr>
<td>30302010</td>
<td>Manufacturers of personal and beauty care products, including cosmetics and perfumes.</td>
</tr>
</tbody>
</table>
# Health Care

## HEALTH CARE EQUIPMENT & SERVICES

<table>
<thead>
<tr>
<th>Industry Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35101020</td>
<td>Health Care Supplies Manufacturers of health care supplies and medical products not classified elsewhere. Includes eye care products, hospital supplies, and safety needle &amp; syringe devices.</td>
</tr>
<tr>
<td>35102010</td>
<td>Health Care Distributors Distributors and wholesalers of health care products not classified elsewhere.</td>
</tr>
<tr>
<td>35102015</td>
<td>Health Care Services Providers of patient health care services not classified elsewhere. Includes dialysis centers, lab testing services, and pharmacy management services. Also includes companies providing business support services to health care providers, such as clerical support services, collection agency services, staffing services and outsourced sales &amp; marketing services.</td>
</tr>
<tr>
<td>35102020</td>
<td>Health Care Facilities Owners and operators of health care facilities, including hospitals, nursing homes, rehabilitation centers and animal hospitals.</td>
</tr>
<tr>
<td>35102030</td>
<td>Managed Health Care Owners and operators of Health Maintenance Organizations (HMOs) and other managed plans.</td>
</tr>
<tr>
<td>35103010</td>
<td>Health Care Technology Companies providing information technology services primarily to health care providers. Includes companies providing application, systems and/or data processing software, internet-based tools, and IT consulting services to doctors, hospitals or businesses operating primarily in the Health Care Sector.</td>
</tr>
</tbody>
</table>
Health Care continued

PHARMACEUTICALS, BIOTECHNOLOGY & LIFE SCIENCES

352010 Biotechnology
- Companies primarily engaged in the research, development, manufacturing and/or marketing of products based on genetic analysis and genetic engineering. Includes companies specializing in protein-based therapeutics to treat human diseases. Excludes companies manufacturing products using biotechnology but without a health care application.

352020 Pharmaceuticals
- Companies engaged in the research, development or production of pharmaceuticals. Includes veterinary drugs.

352030 Life Sciences Tools & Services
- Companies enabling the drug discovery, development and production continuum by providing analytical tools, instruments, consumables & supplies, clinical trial services and contract research services. Includes firms primarily servicing the pharmaceutical and biotechnology industries.
Financials

BANKS

- **40101010** Diversified Banks
  - Large, geographically diverse banks with a national footprint whose revenues are derived primarily from conventional banking operations, have significant business activity in retail banking and small and medium corporate lending, and provide a diverse range of financial services. Excludes banks classified in the Regional Banks and Thrifts & Mortgage Finance Sub-Industries. Also excludes investment banks classified in the Investment Banking & Brokerage Sub-Industry.

- **40101015** Regional Banks
  - Commercial banks whose businesses are derived primarily from conventional banking operations and have significant business activity in retail banking and small and medium corporate lending. Regional banks tend to operate in limited geographic regions. Excludes companies classified in the Diversified Banks and Thrifts & Mortgage Banks sub-industries. Also excludes investment banks classified in the Investment Banking & Brokerage Sub-Industry.

- **40102010** Thrifts & Mortgage Finance
  - Financial institutions providing mortgage and mortgage related services. These include financial institutions whose assets are primarily mortgage related, savings & loans, mortgage lending institutions, building societies and companies providing insurance to mortgage banks.

DIVERSIFIED FINANCIALS

- **40201020** Other Diversified Financial Services
  - Providers of a diverse range of financial services and/or with some interest in a wide range of financial services including banking, insurance and capital markets, but with no dominant business line. Excludes companies classified in the Regional Banks and Diversified Banks Sub-Industries.

- **40201030** Multi-Sector Holdings
  - A company with significantly diversified holdings across three or more Sectors, none of which contributes a majority of profit and/or sales. Stakes held are predominantly of a non-controlling nature. Includes diversified financial companies where stakes held are of a controlling nature. Excludes other diversified companies classified in the Industrials Conglomerates Sub-Industry.

- **40201040** Specialized Finance
  - Providers of specialized financial services not classified elsewhere. Companies in this Sub-Industry derive a majority of revenue from one specialized line of business. Includes, but not limited to, commercial financing companies, central banks, leasing institutions, factoring services, and specialty boutiques. Excludes companies classified in the Financial Exchanges & Data Sub-Industry.
# Financials continued

<table>
<thead>
<tr>
<th>Code</th>
<th>Sub-Industry</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>402020</td>
<td>Consumer Finance</td>
<td>Providers of consumer finance services, including personal credit, credit cards, lease financing, travel-related money services and pawn shops. Excludes mortgage lenders classified in the Thrifts &amp; Mortgage Finance Sub-Industry.</td>
</tr>
<tr>
<td>402030</td>
<td>Capital Markets</td>
<td>Financial institutions primarily engaged in investment management and/or related custody and securities fee-based services. Includes companies operating mutual funds, closed-end funds and unit investment trusts. Excludes banks and other financial institutions primarily involved in commercial lending, investment banking, brokerage and other specialized financial activities.</td>
</tr>
<tr>
<td>402040</td>
<td>Mortgage REITs</td>
<td>Companies or Trusts that service, originate, purchase and/or securitize residential and/or commercial mortgage loans. Includes trusts that invest in mortgage-backed securities and other mortgage related assets.</td>
</tr>
</tbody>
</table>

**GLOBAL INDUSTRY CLASSIFICATION STANDARD (GICS®) METHODOLOGY | January 2020**
### INSURANCE

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>403010</td>
<td>Insurance Brokers</td>
</tr>
<tr>
<td>40301020</td>
<td>Life &amp; Health Insurance</td>
</tr>
<tr>
<td>40301030</td>
<td>Multi-line Insurance</td>
</tr>
<tr>
<td>40301040</td>
<td>Property &amp; Casualty Insurance</td>
</tr>
<tr>
<td>40301050</td>
<td>Reinsurance</td>
</tr>
</tbody>
</table>

- **40301010 Insurance Brokers**: Insurance and reinsurance brokerage firms.
- **40301020 Life & Health Insurance**: Companies providing primarily life, disability, indemnity or supplemental health insurance. Excludes managed care companies classified in the Managed Health Care Sub-Industry.
- **40301030 Multi-line Insurance**: Insurance companies with diversified interests in life, health and property and casualty insurance.
- **40301040 Property & Casualty Insurance**: Companies providing primarily property and casualty insurance.
- **40301050 Reinsurance**: Companies providing primarily reinsurance.
Information Technology
SOFTWARE & SERVICES

- **45102010 IT Consulting & Other Services**
  Providers of information technology and systems integration services not classified in the Data Processing & Outsourced Services Sub-Industry. Includes information technology consulting and information management services.

- **45102020 Data Processing & Outsourced Services**
  Providers of commercial electronic data processing and/or business process outsourcing services. Includes companies that provide services for back-office automation.

- **45102030 Internet Services & Infrastructure**
  Companies providing services and infrastructure for the internet industry including data centers and cloud networking and storage infrastructure. Also includes companies providing web hosting services. Excludes companies classified in the Software Industry.

- **45103010 Application Software**
  Companies engaged in developing and producing software designed for specialized applications for the business or consumer market. Includes enterprise and technical software as well as cloud-based software. Excludes companies classified in the Interactive Home Entertainment Sub-Industry. Excludes companies classified in the Home Entertainment Software Sub-Industry. Also excludes companies producing systems or database management software classified in the Systems Software Sub-Industry.

- **45103020 Systems Software**
  Companies engaged in developing and producing systems and database management software.
Information Technology continued

TECHNOLOGY HARDWARE & EQUIPMENT

- Manufacturers of communication equipment and products, including LANs, WANs, routers, telephones, switchboards and exchanges. Excludes cellular phone manufacturers classified in the Technology Hardware, Storage & Peripherals Sub-Industry.

- Manufacturers of cellular phones, personal computers, servers, electronic computer components and peripherals. Includes data storage components, motherboards, audio and video cards, monitors, keyboards, printers, and other peripherals. Excludes semiconductors classified in the Semiconductors Sub-Industry.

- Manufacturers of electronic equipment and instruments including analytical, electronic test and measurement instruments, scanner/barcode products, lasers, display screens, point-of-sales machines, and security system equipment.


- Producers of electronic equipment mainly for the OEM (Original Equipment Manufacturers) markets.

- Distributors of technology hardware and equipment. Includes distributors of communications equipment, computers & peripherals, semiconductors, and electronic equipment and components.

SEMICONDUCATORS & SEMICONDUCTOR EQUIPMENT

- Manufacturers of semiconductor equipment, including manufacturers of the raw material and equipment used in the solar power industry.

- Manufacturers of semiconductors and related products, including manufacturers of solar modules and cells.
### Communication Services

#### TELECOMMUNICATION SERVICES

- **501010 Alternative Carriers**
  - Providers of communications and high-density data transmission services primarily through a high bandwidth/fiber-optic cable network.

- **5010120 Integrated Telecommunication Services**
  - Operators of primarily fixed-line telecommunications networks and companies providing both wireless and fixed-line telecommunications services not classified elsewhere. Also includes internet service providers offering internet access to end users.

- **50102010 Wireless Telecommunication Services**
  - Providers of primarily cellular or wireless telecommunication services.

### MEDIA & ENTERTAINMENT

- **502010 Advertising**
  - Companies providing advertising, marketing or public relations services.

- **5020120 Broadcasting**
  - Owners and operators of television or radio broadcasting systems, including programming. Includes radio and television broadcasting, radio networks, and radio stations.

- **5020130 Cable & Satellite**
  - Providers of cable or satellite television services. Includes cable networks and program distribution.

- **5020140 Publishing**
  - Publishers of newspapers, magazines and books in print or electronic formats.

- **5020150 Movies & Entertainment**
  - Companies that engage in producing and selling entertainment products and services, including companies engaged in the production, distribution and screening of movies and television shows, producers and distributors of music, entertainment theaters and sports teams. Also includes companies offering and/or producing entertainment content streamed online.

- **502020 Interactive Home Entertainment**
  - Producers of interactive gaming products, including mobile gaming applications. Also includes educational software used primarily in the home. Excludes online gambling companies classified in the Casinos & Gaming Sub-Industry.

- **502030 Interactive Media & Services**
  - Companies engaging in content and information creation or distribution through proprietary platforms, where revenues are derived primarily through pay-per-click advertisements. Includes search engines, social media and networking platforms, online classifieds, and online review companies. Excludes companies operating online marketplaces classified in Internet & Direct Marketing Retail.
Utilities

**UTILITIES**

- **551010 Electric Utilities**
  - Companies that produce or distribute electricity. Includes both nuclear and non-nuclear facilities.

- **551020 Gas Utilities**
  - Companies whose main charter is to distribute and transmit natural and manufactured gas. Excludes companies primarily involved in gas exploration or production classified in the Oil & Gas Exploration & Production Sub-Industry. Also excludes companies engaged in the storage and/or transportation of oil, gas, and/or refined products classified in the Oil & Gas Storage & Transportation Sub-Industry.

- **551030 Multi-Utilities**
  - Utility companies with significantly diversified activities in addition to core Electric Utility, Gas Utility and/or Water Utility operations.

- **551040 Water Utilities**
  - Companies that purchase and redistribute water to the end-consumer. Includes large-scale water treatment systems.

- **551050 Independent Power and Renewable Electricity Producers**
  - Companies that operate as Independent Power Producers (IPPs), Gas & Power Marketing & Trading Specialists and/or Integrated Energy Merchants. Excludes producers of electricity using renewable sources, such as solar power, hydropower, and wind power. Also excludes electric transmission companies and utility distribution companies classified in the Electric Utilities Sub-Industry.
  - Companies that engage in the generation and distribution of electricity using renewable sources, including, but not limited to, companies that produce electricity using biomass, geothermal energy, solar energy, hydropower, and wind power. Excludes companies manufacturing capital equipment used to generate electricity using renewable sources, such as manufacturers of solar power systems, installers of photovoltaic cells, and companies involved in the provision of technology, components, and services mainly to this market.
Real Estate

REAL ESTATE

- **60101010** Diversified REITs
  - A company or Trust with significantly diversified operations across two or more property types.

- **60101020** Industrial REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of industrial properties. Includes companies operating industrial warehouses and distribution properties.

- **60101030** Hotel & Resort REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of hotel and resort properties.

- **60101040** Office REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of office properties.

- **60101050** Health Care REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of properties serving the health care industry, including hospitals, nursing homes, and assisted living properties.

- **60101060** Residential REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of residential properties including multifamily homes, apartments, manufactured homes and student housing properties.

- **60101070** Retail REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of shopping malls, outlet malls, neighborhood and community shopping centers.

- **60101080** Specialized REITs
  - Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of properties not classified elsewhere. Includes trusts that operate and invest in storage properties. It also includes REITs that do not generate a majority of their revenues and income from real estate rental and leasing operations.

- **60102010** Diversified Real Estate Activities
  - Companies engaged in a diverse spectrum of real estate activities including real estate development & sales, real estate management, or real estate services, but with no dominant business line.

- **60102020** Real Estate Operating Companies
  - Companies engaged in operating real estate properties for the purpose of leasing & management.

- **60102030** Real Estate Development
  - Companies that develop real estate and sell the properties after development. Excludes companies classified in the Homebuilding Sub-Industry.

- **60102040** Real Estate Services
  - Real estate service providers such as real estate agents, brokers & real estate appraisers.
SECTION 8: MSCI FIXED INCOME SECTOR CLASSIFICATION GUIDELINES

MSCI also leverages the Global Industry Classification Standard (GICS) to classify companies that have issued Fixed Income securities such as corporate bonds.

8.1: FIXED INCOME UNIVERSE ELIGIBLE FOR CLASSIFICATION

Corporates that have issued bonds are eligible for a classification.

Supranationals, Municipals and Sovereigns that have issued fixed income securities are currently not covered under this Methodology.

8.1.1. CLASSIFICATION OF A COMPANY THAT HAS ISSUED BOTH EQUITY AND CORPORATE BONDS

Propagation of GICS from company level to security level

GICS is assigned at the company level and thus all securities, equities or corporate bonds, issued by the company will have the same GICS classification as the company.

MSCI leverages GICS assigned to a company that has issued equity securities and assigns the same GICS classification to the corporate bonds issued by the company.

Example: GICS of a corporate bond issued by General Electric

The corporate bond issued by General Electric will have the same GICS as assigned to General Electric.

<table>
<thead>
<tr>
<th>GICS level</th>
<th>GICS code</th>
<th>GICS description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>20</td>
<td>Industrials</td>
</tr>
<tr>
<td>Industry Group</td>
<td>2010</td>
<td>Capital Goods</td>
</tr>
<tr>
<td>Industry</td>
<td>201050</td>
<td>Industrial Conglomerates</td>
</tr>
<tr>
<td>Sub-Industry</td>
<td>20105010</td>
<td>Industrial Conglomerates</td>
</tr>
</tbody>
</table>
8.1.2 CLASSIFICATION OF A COMPANY THAT HAS ISSUED ONLY CORPORATE BONDS

Each corporate bond issuer is assigned to a GICS Sub-Industry based on the GICS of its related listed entity, i.e., its parent company or ultimate parent company, as available in GICS Direct.

Example: GICS of corporate bond issued by Coca-Cola Refreshments USA Inc.

Coca-Cola Refreshments USA Inc.’s parent is Coca-Cola Co which is classified as “30201030 - Soft Drinks”.

GICS of the corporate bond issued by Coca-Cola Refreshments USA Inc. will be:

<table>
<thead>
<tr>
<th>GICS level</th>
<th>GICS code</th>
<th>GICS description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td>30</td>
<td>Consumer Staples</td>
</tr>
<tr>
<td>Industry Group</td>
<td>3020</td>
<td>Food, Beverage and Tobacco</td>
</tr>
<tr>
<td>Industry</td>
<td>302010</td>
<td>Beverages</td>
</tr>
<tr>
<td>Sub-Industry</td>
<td>30201030</td>
<td>Soft Drinks</td>
</tr>
</tbody>
</table>

In cases where the related entities, i.e., its parent and ultimate parent company don’t have GICS in GICS Direct, the corporate bond issuer will be classified based on its own or its related entities’ underlying business using the GICS framework.

In addition, if the corporate bond issuer is a special purpose vehicle or a captive finance vehicle, it will be classified based on the business of its related entities as described in Section 3.

8.2 SOURCE OF INFORMATION USED FOR THE GICS CLASSIFICATION OF FIXED INCOME

The primary source of information used to classify fixed income securities is the company’s annual reports and accounts. Other sources include broker reports and other published research literature. In the case of a new issue, the classification will be determined based primarily on the description of the company’s activities and pro forma results as given in the prospectus.
8.3 MAINTENANCE OF GICS FOR COMPANIES THAT HAVE ISSUED CORPORATE BONDS

8.3.1 ONGOING REVIEW

A company’s Sub-Industry classification will be reviewed at least annually. It will also be reviewed when a significant corporate restructuring occurs. GICS reviews could also occur upon client request.

In order to provide a stable Sub-Industry classification, when reviewing a company’s classification, changes will be minimized in the Sub-Industry classification to the extent possible by disregarding temporary fluctuations in the results of a company’s different activities.

8.3.2 IMPACT OF GICS STRUCTURE REVIEW

All changes in the GICS Structure and definitions resulting from a Structure Review will be applicable to the classification of companies that have issued fixed income securities as well.
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