Data Methodology



GLOBAL INDUSTRY CLASSIFICATION STANDARD (GICS®) METHODOLOGY

Guiding Principles and Methodology for GICS

January 2020

GLOBAL INDUSTRY CLASSIFICATION STANDARD (GICS®) METHODOLOGY | 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.





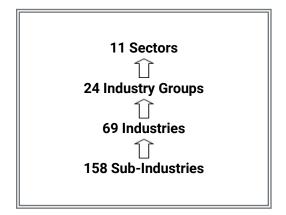
SECTION 1: INTRODUCTION

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.





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

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	

15 Materials

1510 Materials

1010	
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 C	2010 Capital goods		
201010	Aerospace & Defense		
	20101010 Aerospace & Defense		
201020	Building Products		
	20102010 Building Products		
201030	Construction & Engineering		
	20103010 Construction & Engineering		
201040			
	20104010 Electrical Components & Equipment		
	20104020 Heavy Electrical Equipment		
201050			
	20105010 Industrial Conglomerates		
201060			
	20106010 Construction Machinery & Heavy		
	Trucks		
	20106015 Agricultural & Farm Machinery		
	20106020 Industrial Machinery		
201070	Trading Companies & Distributors		
	20107010 Trading Companies & Distributors		
2020 C	ommercial & 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 T	ransportation		
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		



9 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

2550 Retailing

255010	Distributors
	25501010 Distributors
255020	Internet & Direct Marketing Retail
	25502020 Internet & Direct Marketing Retail
255030	Multiline Retail
	25503010 Department Stores
	25503020 General Merchandise Stores
255040	Specialty Retail
	25504010 Apparel Retail
	25504020 Computer & Electronics Retail
	25504030 Home Improvement Retail
	25504040 Specialty Stores

25504050 Automotive Retail

25504060 Homefurnishing Retail

Onsumer 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 35102010 Health Care Distributors 35102010 Health Care Services 35102020 Health Care Services 35102020 Health Care Facilities 35102030 Managed Health Care 351030 Health Care Technology 3520 Pharmaceuticals, Biotechnology & Life Sciences 352010 Biotechnology

JJZU Fliathaceuticais, Diotechnology & Life		
Science	ces	
352010	Biotechnology	
	35201010 Biotechnology	
352020	Pharmaceuticals	
	35202010 Pharmaceuticals	
352030	Life Sciences Tools & Services	
	35203010 Life Sciences Tools & Services	



40	Financials
-----------	------------

4010 Banks

401010 Banks 40101010 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

 40202010
 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	
	45201020 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

S0 Communication Services

5010 Telecommunication Services

- 501010 Diversified Telecommunication Services 50101010 Alternative Carriers 50101020 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 5020200 Entertainment 50202010 Movies & Entertainment 50202020 Interactive Home Entertainment 5020300 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 marketbased 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 demandoriented 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.

2018 Fiscal year	Sales
Online stores (Internet retail)	54%
Physical stores	7%
Third-party seller services (Internet retail)	18%
Subscription services	6%
Amazon Web Services	11%
Sales of advertising services	4%
Total	100%

GICS level	GICS code	GICS description
Sector	25	Consumer Discretionary
Industry Group	2550	Retailing
Industry	255020	Internet & Direct Marketing Retail
Sub-Industry	25502020	Internet & Direct Marketing Retail



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)

2018 Fiscal Year	Power	Renewable Energy	Aviation	Oil & Gas	Healthcare	Transportation	Lighting	Capital
Revenue	22%	8%	24%	18%	16%	3%	1%	8%
Earnings	-8%	3%	63%	4%	36%	6%	1%	-5%

GICS level	GICS code	GICS description
Sector	20	Industrials
Industry Group	2010	Capital Goods
Industry	201050	Industrial Conglomerates
Sub-Industry	20105010	Industrial Conglomerates

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.

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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.

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SECTION 7: GICS SUB-INDUSTRY DEFINITIONS

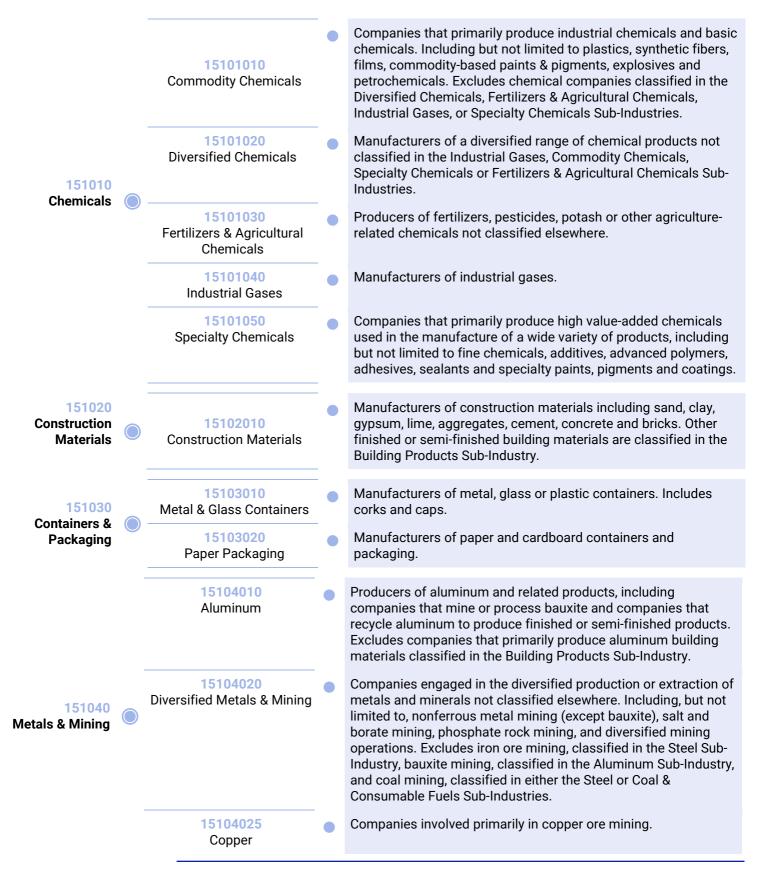


Energy ENERGY

101010 Energy Equipment & Services	10101010 Oil & Gas Drilling	•	Drilling contractors or owners of drilling rigs that contract their services for drilling wells.
	10101020 Oil & Gas Equipment & Services	•	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.
101020 Oil, Gas & Consumable Fuels	10102010 Integrated Oil & Gas		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.
	10102020 Oil & Gas Exploration & Production		Companies engaged in the exploration and production of oil and gas not classified elsewhere.
	10102030 Oil & Gas Refining & Marketing		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.
	10102040 Oil & Gas Storage & Transportation	•	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.
	10102050 Coal & Consumable Fuels	•	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.



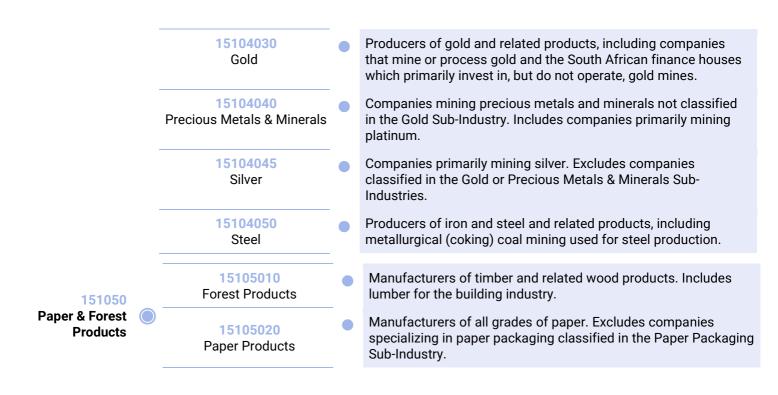
Materials MATERIALS



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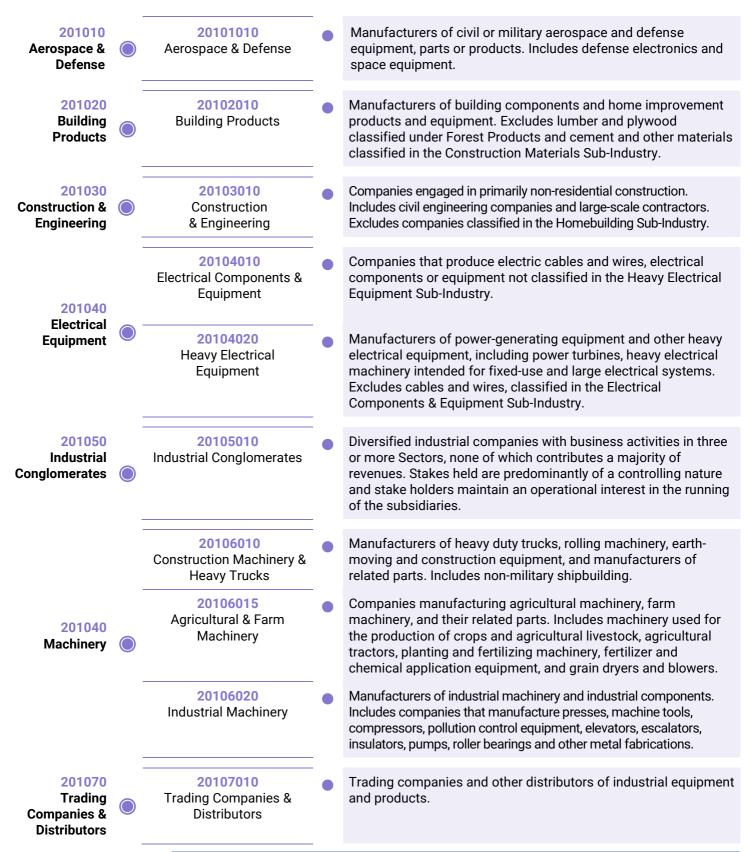
Materials continued







Industrials CAPITAL GOODS







Industrials continued COMMERCIAL & PROFESSIONAL SERVICES



Companies providing commercial printing services. Includes printers primarily serving the media industry.

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.

Providers of office services and manufacturers of office supplies and equipment not classified elsewhere.

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.

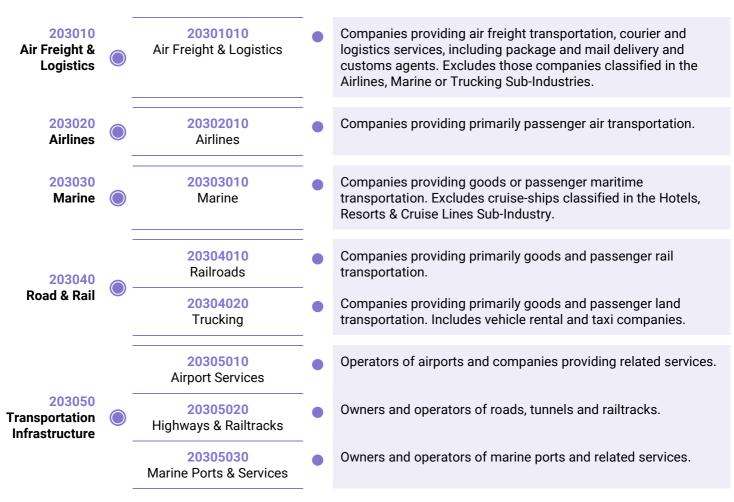
Companies providing security and protection services to business and governments. Includes companies providing services such as correctional facilities, security & alarm services, armored transportation & guarding. Excludes companies providing security software classified under the Systems Software Sub-Industry 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.

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.

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.



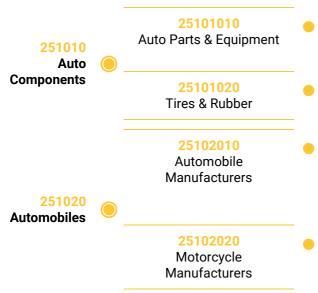
Industrials continued TRANSPORTATION





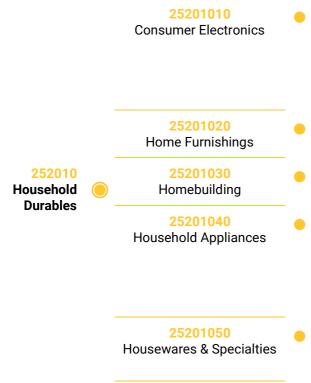


Consumer Discretionary AUTOMOBILES & COMPONENTS



- Manufacturers of parts and accessories for automobiles and motorcycles. Excludes companies classified in the Tires & Rubber Sub-Industry.
- Manufacturers of tires and rubber.
 - 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.
- Companies that produce motorcycles, scooters or threewheelers. Excludes bicycles classified in the Leisure Products Sub-Industry.

CONSUMER DURABLES & APPAREL



- 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.
- Manufacturers of soft home furnishings or furniture, including upholstery, carpets and wall-coverings.
- Residential construction companies. Includes manufacturers of prefabricated houses and semi-fixed manufactured homes.
- 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.

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



Consumer Discretionary continued



Manufacturers of leisure products and equipment including sports equipment, bicycles and toys.

Manufacturers of apparel, accessories & luxury goods. Includes companies primarily producing designer handbags, wallets, luggage, jewelry and watches. Excludes shoes classified in the Footwear Sub-Industry.

Manufacturers of footwear. Includes sport and leather shoes.

Manufacturers of textile and related products not classified in the Apparel, Accessories & Luxury Goods, Footwear or Home Furnishings Sub-Industries.

CONSUMER SERVICES

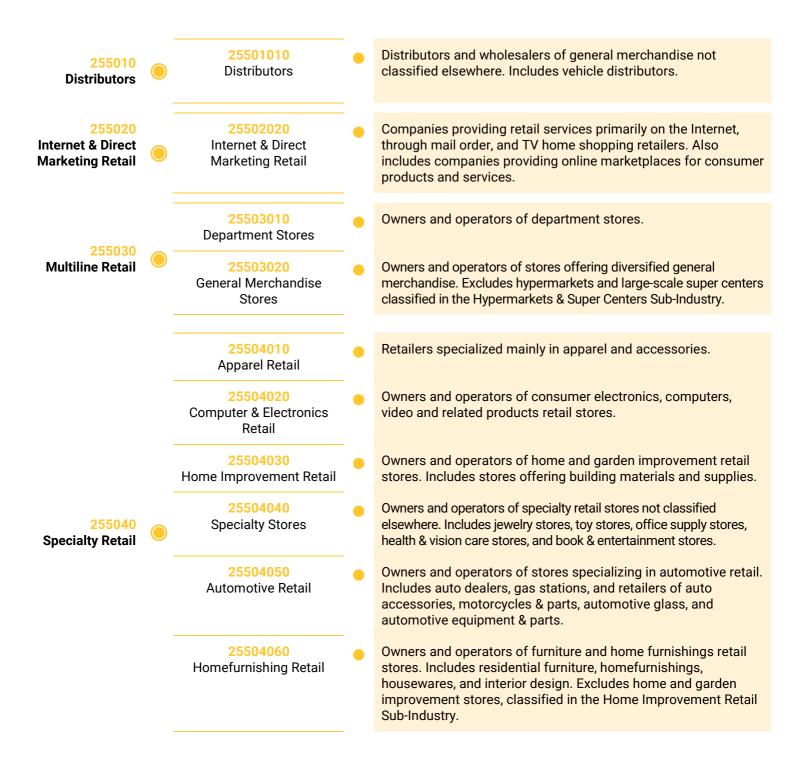
- Owners and operators of casinos and gaming facilities. Includes companies providing lottery and betting services.
- Owners and operators of hotels, resorts and cruise-ships. Includes travel agencies, tour operators and related services not classified elsewhere. Excludes casino-hotels classified in the Casinos & Gaming Sub-Industry.
- Owners and operators of leisure facilities, including sport and fitness centers, stadiums, golf courses and amusement parks not classified in the Movies & Entertainment Sub-Industry.
- Owners and operators of restaurants, bars, pubs, fast-food or take-out facilities. Includes companies that provide food catering services.

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 & Employment Services Sub-Industry.

Companies providing consumer services not classified elsewhere. Includes residential services, home security, legal services, personal services, renovation & interior design services, consumer auctions and wedding & funeral services.



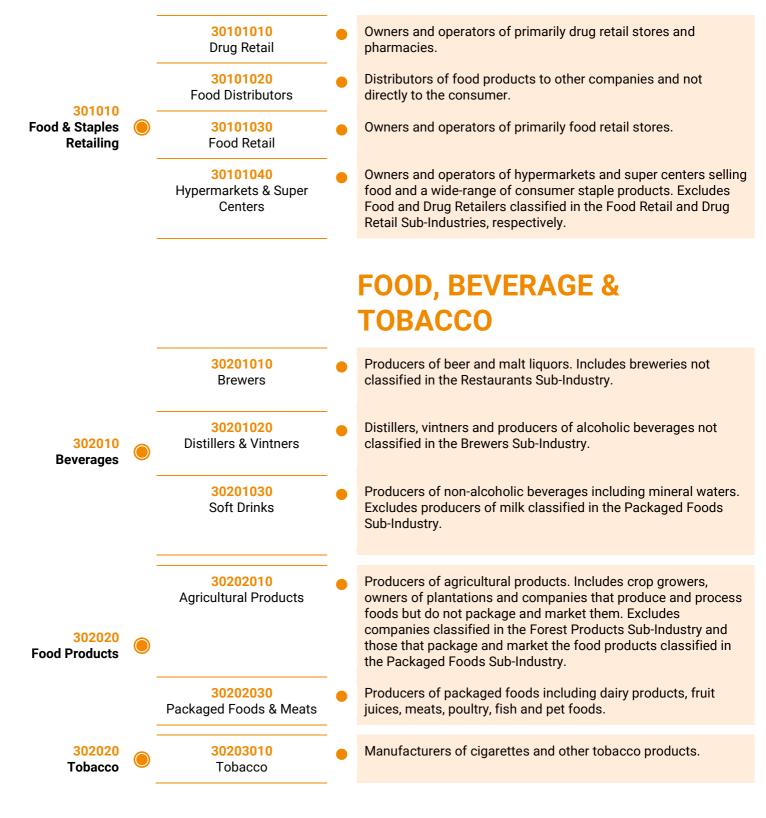
Consumer Discretionary continued RETAILING







Consumer Staples





Consumer Staples continued HOUSEHOLD & PERSONAL PRODUCTS



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.

Manufacturers of personal and beauty care products, including cosmetics and perfumes.





Health Care HEALTH CARE EQUIPMENT & SERVICES

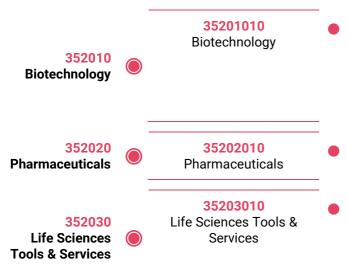


- Manufacturers of health care equipment and devices. Includes medical instruments, drug delivery systems, cardiovascular & orthopedic devices, and diagnostic equipment.
- Manufacturers of health care supplies and medical products not classified elsewhere. Includes eye care products, hospital supplies, and safety needle & syringe devices.
- Distributors and wholesalers of health care products not classified elsewhere.
- 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 & marketing services.
- Owners and operators of health care facilities, including hospitals, nursing homes, rehabilitation centers and animal hospitals.
- Owners and operators of Health Maintenance Organizations (HMOs) and other managed plans.
- Companies providing information technology services primarily to health care providers. Includes companies providing application, systems and/or data processing software, internetbased tools, and IT consulting services to doctors, hospitals or businesses operating primarily in the Health Care Sector.





Health Care continued PHARMACEUTICALS, BIOTECHNOLOGY & LIFE SCIENCES



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.

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

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.





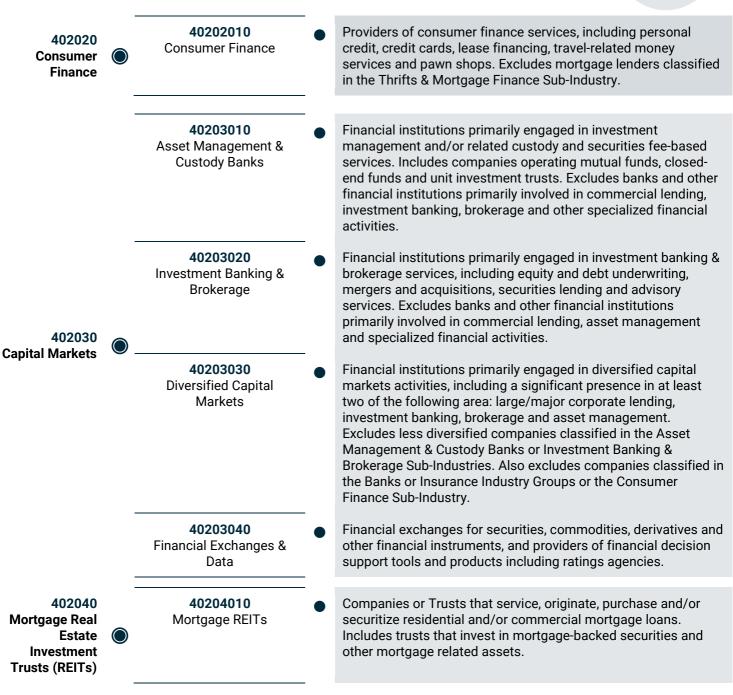


401010		40101010 Diversified Banks	•	Large, geographically diverse banks with a national footprint whose revenues are derived primarily from conventional banking operations, have significant business activity in retail banking and small and medium corporate lending, and provide a diverse range of financial 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.
Banks		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.
401020 Thrifts & Mortgage Finance	٢	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.
402010 Diversified Financial Services	۲	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







Financials continued

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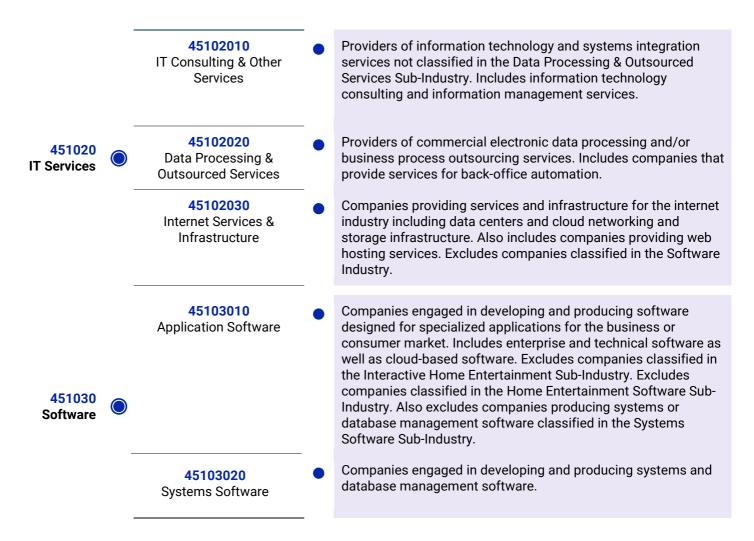


- Insurance and reinsurance brokerage firms.
- Companies providing primarily life, disability, indemnity or supplemental health insurance. Excludes managed care companies classified in the Managed Health Care Sub-Industry.
- Insurance companies with diversified interests in life, health and property and casualty insurance.
- Companies providing primarily property and casualty insurance.
- Companies providing primarily reinsurance.





Information Technology SOFTWARE & SERVICES



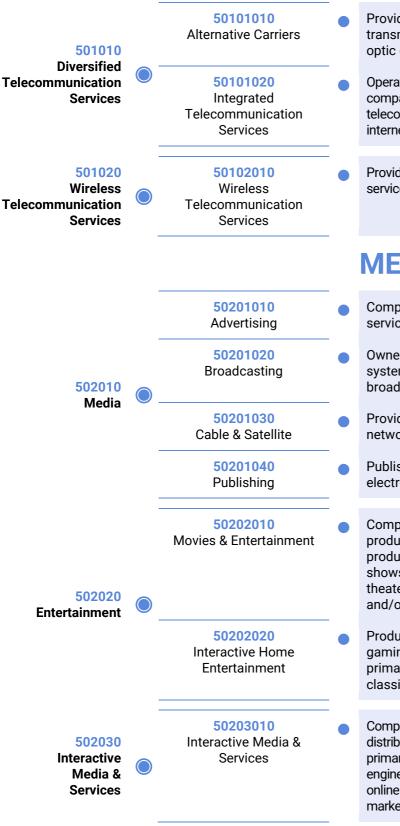


Information Technology continued TECHNOLOGY HARDWARE & EQUIPMENT

45201020 Manufacturers of communication equipment and products, 452010 Communications including LANs, WANs, routers, telephones, switchboards and Communications exchanges. Excludes cellular phone manufacturers classified in Equipment Equipment the Technology Hardware, Storage & Peripherals Sub-Industry. 452020 45202030 Manufacturers of cellular phones, personal computers, servers, Technology Technology Hardware, electronic computer components and peripherals. Includes data Hardware, Storage & Peripherals storage components, motherboards, audio and video cards, Storage & monitors, keyboards, printers, and other peripherals. Excludes Peripherals semiconductors classified in the Semiconductors Sub-Industry. 45203010 Manufacturers of electronic equipment and instruments **Electronic Equipment &** including analytical, electronic test and measurement instruments, scanner/barcode products, lasers, display screens, Instruments point-of-sales machines, and security system equipment. 45203015 Manufacturers of electronic components. Includes electronic components, connection devices, electron tubes, electronic **Electronic Components** 452030 capacitors and resistors, electronic coil, printed circuit board, Electronic transformer and other inductors, signal processing Equipment, technology/components. Instruments & 45203020 Producers of electronic equipment mainly for the OEM (Original Components **Electronic Manufacturing** Equipment Manufacturers) markets. Services 45203030 Distributors of technology hardware and equipment. Includes **Technology Distributors** distributors of communications equipment, computers & peripherals, semiconductors, and electronic equipment and components. **SEMICONDUCTORS &** SEMICONDUCTOR EQUIPMENT 45301010 Manufacturers of semiconductor equipment, including 453010 Semiconductor manufacturers of the raw material and equipment used in the Semiconductors Equipment solar power industry. Semiconductor 45301020 Manufacturers of semiconductors and related products, Equipment including manufacturers of solar modules and cells. Semiconductors



Communication Services (TELECOMMUNICATION SERVICES



- Providers of communications and high-density data transmission services primarily through a high bandwidth/fiber-optic cable network.
- 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.
- Providers of primarily cellular or wireless telecommunication services.

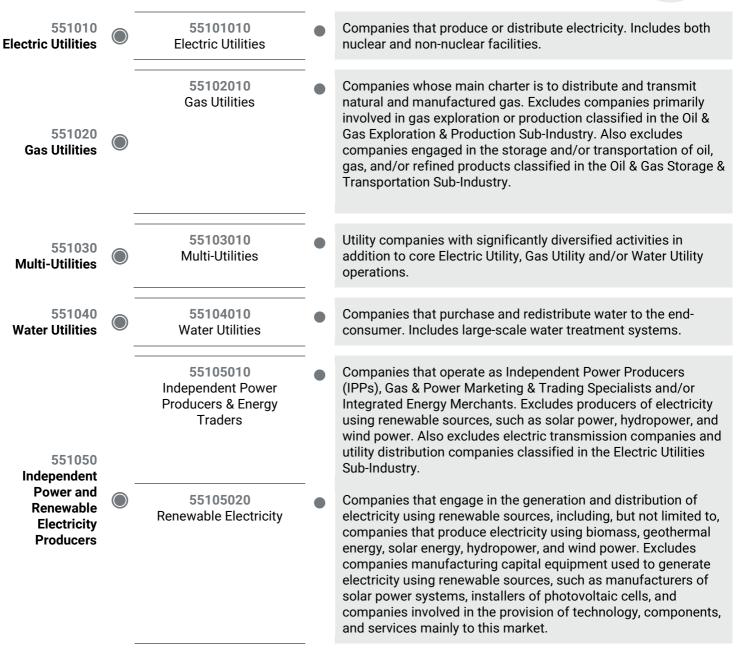
MEDIA & ENTERTAINMENT

- Companies providing advertising, marketing or public relations services.
- Owners and operators of television or radio broadcasting systems, including programming. Includes radio and television broadcasting, radio networks, and radio stations.
- Providers of cable or satellite television services. Includes cable networks and program distribution.
- Publishers of newspapers, magazines and books in print or electronic formats.
- 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.
- 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.
 - 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







Real Estate REAL ESTATE



			REAL ESTATE
601010 Equity Real Estate Investment Trusts (REITs)	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.

GICS level	GICS code	GICS description
Sector	20	Industrials
Industry Group	2010	Capital Goods
Industry	201050	Industrial Conglomerates
Sub-Industry	20105010	Industrial Conglomerates



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 level	GICS code	GICS description
Sector	30	Consumer Staples
Industry Group	3020	Food, Beverage and Tobacco
Industry	302010	Beverages

30201030

Sub-Industry

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

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.

Soft Drinks

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 IMAPCT 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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