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CONSULTATION ON POTENTIAL CHANGES TO TELECOMMUNICATION SERVICES SECTOR IN THE GLOBAL INDUSTRY CLASSIFICATION STANDARD (GICS®) STRUCTURE IN 2018

July 11, 2017

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INTRODUCTION

- S&P Dow Jones Indices and MSCI have decided to consult with members of the investment community on potential changes to the Telecommunication Services Sector within the GICS structure in 2018. This consultation paper is designed to allow market participants to understand and give feedback on the potential changes, which in turn will help MSCI and S&P Dow Jones Indices to make any final decisions.
- The consultation begins on July 11, 2017 and ends on September 29, 2017. Any changes to the GICS structure are expected to be announced by November, 2017. This consultation may or may not result in any changes to the GICS structure.

For a detailed description of GICS, please refer to S&P Dow Jones Indices' website at www.spdji.com or MSCI's website at www.msci.com.

Mode of consultation:

If you would like to participate in this consultation, there are two options:

- Click on the below link to participate in the online survey <u>www.surveymonkey.com/r/SPDJI-GICS-2017</u>
- Contact one of the following email addresses with your feedback
 - » S&P Dow Jones Indices: index services@spglobal.com
 - » MSCI: clientservice@msci.com
 - » Contact S&P Dow Jones or MSCI Account Manager or Representative

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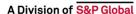


THE EVOLUTION OF THE GICS STRUCTURE

In August 1999, MSCI and S&P Dow Jones Indices announced their agreement to co-develop GICS. The four tier structure was first introduced with 10 Sectors, 23 Industry Groups, 59 Industries, and 123 Sub-Industries. Through the practice of periodic client consultations, the structure has evolved to 11 Sectors, 24 Industry Groups, 68 Industries, and 157 Sub-Industries. This evolution of the GICS structure demonstrates that GICS is reflective of today's markets and continues to be an accurate and complete industry framework for investment research, portfolio management, and asset allocation.

Some of the more significant changes to GICS methodology include:

- Real Estate Effective in 2016, Real Estate was promoted to a Sector, the first additional Sector to be added to the GICS structure. This change highlights the fact that real estate is viewed as a distinct asset class and a growing part of global economies.
- Industrials Sector The addition of an Industry for Professional Services and Sub-Industries for Diversified Support Services, Human Resource & Employment Services, Research & Consulting Services, and Security & Alarm Services.
- Information Technology Sector The deletion of the Office Electronics Industry and the creation of the Technology Hardware, Storage & Peripherals Sub-Industry by merging the Computer Hardware and Computer Storage & Peripherals Sub -Industries.
- Utilities Sector The creation of a Sub-Industry for Renewable Electricity.





REVIEW OF THE TELECOMMUNICATION SERVICES SECTOR, MEDIA & CONSUMER INTERNET SERVICES

Rationale for the review:

- The Telecommunication Services Sector is changing as land lines disappear, smart phones become more affordable, and internet connections become increasingly important. Companies in this Sector are adapting by diversifying into internet services, cable, media content and other areas by consolidating with other companies.
- As a result of this consolidation, the largest concentration of telecommunication companies is in the United States, comprising 20% of the total Sector market capitalization and number of companies. Other relatively smaller concentrations are located in Japan, China, the United Kingdom, and Australia.
- In addition, the Internet Software & Services Sub-Industry has become too large and diverse to be useful for analysis or index construction. Further, it has also evolved to include new business models using internet technology to cater to a variety of end users and industries. The internet is now simply the medium for delivery of a company's products & services.

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PROPOSAL: COMMUNICATION SERVICES SECTOR

SECTOR	INDUSTRY GROUP	INDUSTRY	SUB-INDUSTRY
50 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*
		502020 Entertainment	50202010 Movies & Entertainment*
			50202020 Interactive Home Entertainment**
	5030 Consumer Internet & Digital Services	503010 Consumer Internet & Digital Services	50301010 Consumer Internet & Digital Services**

^{*} No change to current Sub-Industry definition

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Interactive Home Entertainment: Producers of interactive gaming products. Includes educational software used primarily in the home. Excludes online gambling companies classified in the Casinos & Gaming Sub-Industry.

Consumer Internet & Digital Services: Internet companies facilitating communication using the internet as a tool. Includes companies providing search engines and social media applications such as photo sharing and mobile messaging applications.

^{**} Proposed definitions are:

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PROPOSAL: COMMUNICATION SERVICES SECTOR

- The Telecommunication Services Sector is renamed as Communication Services Sector.
- The Telecommunication Services Industry Group remains as is under the Communication Services Sector.
- The proposal moves the Media Industry Group from under the Consumer Discretionary Sector into the Communication Services Sector.
 - Renamed as Media & Entertainment, remaining as an Industry Group
 - Includes two Industries: Media and Entertainment
 - » The Media Industry contains Advertising, Broadcasting, Cable & Satellite, and Publishing
 - The Entertainment Industry contains Movies & Entertainment and Interactive Home Entertainment. The latter generally contains companies from the current Home Entertainment Software* Sub-Industry and some companies from the current Application Software Sub-Industry under the Information Technology Sector
- An additional Industry Group is created in the Sector, named Consumer Internet & Digital Services.
 - Includes one Industry and Sub-Industry: Consumer Internet & Digital Services
 - The Consumer Internet & Digital Internet Services Sub-Industry includes certain companies pulled from the Information Technology Sector, mainly the Internet Software & Services and Application Software Sub-Industries.
 - » These companies facilitate social communication and interaction using the internet as a tool, and include companies focused on providing social media, search engines, photo sharing and mobile messaging applications.

^{*} Home Entertainment Software Sub-Industry in the Information Technology Sector is deleted

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DISCUSSION TOPICS - COMMUNICATION SERVICES SECTOR

- 1. Should internet companies that facilitate communication and interaction be classified in the Communication Services Sector?
 - Do search engines, social media, and mobile messaging companies warrant a classification under the Communication Services Sector?
 - Should companies that offer internet access to consumers, as well as those engaged in web hosting and web
 design services, be classified under the Communication Services Sector?
- 2. Should a company's classification be determined based on the revenues linked to the industry in which it operates or by the platform it uses to conduct its operations?
 - Should an online real estate classifieds company be classified as 'Consumer Internet & Digital services'
 within the Communication Services Sector or as 'Real Estate'? An example is Zillow Group, Inc.*
 - Should online marketplaces that do not hold inventory but provide an internet platform for buyer/seller interaction be classified within the Information Technology Sector or the Communication Services Sector? Examples are Alibaba Group* and eBay Inc.*
 - Should companies providing online movies and streaming services be classified as Media in the Communication Services Sector? Examples are Netflix Inc.* and Pandora Inc.*
 - Should online platforms catering to the travel & tourism industry continue to be classified as Internet & Direct Marketing Retail under the Consumer Discretionary Sector or should they be moved to the Communication Services Sector? Examples are Expedia* and TripAdvisor Inc.*

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^{*}The purpose of identifying companies as examples is only to provide context to the discussion. It does not imply that the company is moving, even if changes are made to the GICS structure. S&P DJI and MSCI reserve the right to classify companies as they see appropriate.

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DISCUSSION TOPICS - COMMUNICATION SERVICES SECTOR

- 3. Should companies developing games which can be played on multiple devices such as smartphones, TVs and computers either through the internet or consoles be classified within the Media & Entertainment Industry Group?
- 4. Should online gambling companies continue to be classified in the Casinos & Gaming Sub-Industry in the Consumer Discretionary Sector?
- 5. Should companies offering cloud-computing services and internet infrastructure services be classified in a Sub-Industry under the Information Technology Sector or should they move to the new Communication Services Sector?
- 6. Where should the remaining companies in the Internet Software & Services Sub-Industry, such as data centers, web hosting companies, and internet software, be classified?
- 7. As the entire Software Industry has evolved drastically over the years, is there any distinction between companies that offer software primarily for the internet and companies that develop Application Software?
 - Should the remaining internet software companies remain in the existing Internet Software & Services Sub-Industry, or should the Sub-Industry be moved under the Software Industry into a new Sub-Industry?
- 8. From an index history perspective, should the Communication Services Sector be a new Sector with a new Sector code, or should Media and selected Consumer Internet & Digital Services companies be merged into the existing Telecommunication Services Sector?

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ADDITIONAL DISCUSSION TOPICS

- 1. Do alternative investment vehicles such as closed-end funds warrant a classification within the GICS Structure?
 - Should they be classified in the Financials Sector or in the industry in which they are investing?
- 2. What should we focus on over the next three-to-five years?

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CHANGES TO SUB-INDUSTRY DEFINITIONS

GICS is assigned based on a company's principal business activity irrespective of geographical locations.

Accordingly, the sub-industry definitions for Oil & Gas Storage & Transportation under the Energy Sector, as well as Gas Utilities under the Utilities Sector, is being updated. The new definitions are as follows:

GICS Sub-Industry	Current Definition	New definition
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 facing competitive markets, oil and refined product pipelines, coal slurry pipelines and oil & gas shipping companies	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
55102010 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 diversified midstream natural gas companies classified in the Oil & Gas Storage & Transportation sub-industry	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

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