Standard & Poor's and MSCI Barra Consultation Paper on Potential Changes to the Global Industry Classification Standard (GICS®)

I. INTRODUCTION

MSCI Barra and Standard & Poor's (S&P), as part of their annual GICS review, are hoping to clarify some of the definitions of Sub-Industries within the GICS structure. Our objective is to ensure that GICS continues to clearly and accurately represent the global equity markets and, thereby, enables asset owners, asset managers and investment research specialists to make seamless global comparisons by industry.

This consultation paper is designed to serve as a basis for discussion before MSCI Barra and S&P make any final decisions. Any minor definitional changes are expected to be announced by the end of the first quarter of 2010. Any changes that would result in a structural change will not be announced until the end of 2010. **This consultation may or may not result in any changes to the GICS structure or definitions.**

II. THE EVOLUTION OF THE GICS STRUCTURE

In August of 1999, Standard & Poor's and MSCI Barra announced their agreement to co-develop the Global Industry Classification Standard (GICS®).

When first introduced GICS was a four tier structure with an eight-digit taxonomy – 10 Sectors, 23 Industry Groups, 59 Industries and 123 Sub-Industries. Through the practice of annual client consultations the structure has evolved to 10 Sectors, 24 Industry Groups, 68 Industries and 154 Sub-Industries. All of the changes considered direct input from global equity market participants.

Some of the more significant changes over the past 10 years include:

- Consumer Discretionary Sector – the addition of a diversified consumer services Industry, and automotive retail, cable & satellite, education services, homefurnishing retail and specialized consumer services Sub-Industries.
- Energy Sector – the addition of the oil & gas storage & transportation and coal & consumable fuels Sub-Industries.
- Financials Sector – the addition of asset management & custody banks, diversified capital markets, investment banking & brokerage, regional banks, specialized finance, and thrifts & mortgage finance Sub-Industries. The creation of a real estate investment trust (REIT) Industry and seven REIT-related Sub-Industries.
- Health Care Sector – the addition of life sciences tools & services, health care services, and health care technology Sub-Industries.
- Industrial Sector – the addition of a professional services Industry, and diversified support services, human resource & employment services, research & consulting services, and security & alarm services Sub-Industries.
- Information Technology Sector – the promotion of the semiconductors & semiconductor equipment Industry to Industry Group status. The addition of data processing & outsourced services, electronic components, electronic manufacturing services, home entertainment software, and technology distributors Sub-Industries.

- Utilities Sector – the addition of the independent power producers & energy traders Sub-Industry.

III. SUMMARY OF PROPOSALS

The main proposals set out in this consultation paper are:

- Analysis of solar power system and photovoltaic module manufacturers
- Review of the definition of the Independent Power Producers & Energy Traders Sub-Industry
- Review of the definitions of the Coal & Consumable Fuels and Diversified Metals & Mining Sub-Industries
- Review of the REITs Industry
- Further feedback from the market. What should we be focusing on over the next three-to-five years?

For a detailed description of the classification standard, please refer to the MSCI Barra web site at www.mscibarra.com or the Standard & Poor's web site at www.gics.standardandpoors.com.

IV. ANALYSIS OF SOLAR POWER SYSTEM AND PHOTOVOLTAIC MODULE MANUFACTURERS

Rationale for the review

Manufacturers of solar power systems and photovoltaic (PV) modules are currently classified in the Electrical Components & Equipment Sub-Industry (within the Industrials Sector). However, some analysts have indicated it may be more appropriate for all solar related companies to fall under the Semiconductors or Semiconductor Equipment Sub-Industries (within the Information Technology Sector), as solar manufacturers share great similarities to semiconductor manufacturers.

Solar companies may be more accurately classified under an information technology sector sub-industry given the close relationship, growth trends, past performance, comparable peers, and coverage that solar companies share with other technology companies. Solar companies have demonstrated that they are embarking on the same path that semiconductor and semiconductor equipment companies have taken over the past 20 years. In addition to fundamental similarities, solar stocks are extremely volatile in nature and have resembled performance returns (albeit over a short time horizon) closer to technology related securities.

Some supporting rationale is as follows:

- **The fundamentals of the solar industry have close ties to the IT Sector.** Memory manufacturers have historically often seen periods of strong growth, leading to over-investment and excess supply, followed by periods of weakness; with the cycle repeating when demand eventually catches up to, and outstrips, supply. Solar companies also often look like they are prone to the supply/demand boom and bust periods that have been experienced in the semiconductor memory industry. In addition, chip manufacturers have historically seen selling prices erode over a long period of time, which is what many experts anticipate is in store for the solar industry over the next 10 years.
- **Solar panels are perceived as large semiconductor devices.** Semiconductor devices include the transistor, many kinds of diodes including the light-emitting diode, the silicon

controlled rectifier, and digital and analog integrated circuits. Solar panels are essentially large semiconductor devices that directly convert light energy into electrical energy. Crystalline silicon, which is the primary raw material found in a solar module, is derived from silicon, a commonly used semiconductor.

- **Solar manufacturer peers include many traditional technology firms that have migrated into the solar industry.** Currently, many of the solar companies compete with semiconductor and other technology driven companies.
- **Growth potential of solar is more comparable to that seen in products within the technology sector.** Expectations are for solar installations to grow at a pace of 30-50% over the next three to five years. Growth trends are more closely linked to that seen in the technology sector than those found in the industrial sector.
- **Unstable Margins.** Memory manufacturers have historically seen wide swings in margins, witnessing high margins during periods of strong growth and volume, and low (often negative for many companies) margins following periods of over-investment and excess supply. Rapidly declining (rising) prices also occur during weak (healthy) periods, magnifying the margin swings. Solar companies have thus far demonstrated the same exact characteristics, and are likely to experience similar supply/demand boom and bust periods.
- **Solar objective similar to Moore's Law?** Moore's Law has been a goal that industry leaders in both the semiconductor and semiconductor equipment industry have tried to keep up with over the last few decades. Simply put, Moore's Law means that, for the same price, a person can purchase twice the processing power and twice the amount of memory every couple of years. Many believe some form of Moore's Law will be needed for solar to help the industry reach grid parity.
- **Most solar stocks are tracked by analysts that cover technology securities.** Most of the pure solar related stocks are covered by semiconductor equipment sell-side analysts.

Proposal

Reclassify manufacturers of solar modules/cells/materials/equipment in the semiconductor related Sub-Industries, while keeping those that install such equipment in the Electrical Equipment Sub-Industry.

The proposed definitions for the new Sub-Industries are:

<u>Semiconductor Equipment</u>

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

<u>Semiconductors</u>

Manufacturers of semiconductors and related products, including manufacturers of solar modules and cells.

V. REVIEW OF THE DEFINITION OF THE INDEPENDENT POWER PRODUCERS & ENERGY TRADERS SUB-INDUSTRY

Rationale for the Review

While MSCI and S&P have been very consistent about where we have classified companies that generate power through alternative means, given the recent focus on alternative energy sources it might be appropriate to clarify such classification in our published definitions.

The proposed definitions for the new Sub-Industries are:

Independent Power Producers & Energy Traders

Companies that operate as Independent Power Producers (IPPs), Gas & Power Marketing & Trading Specialists and/or Integrated Energy Merchants. Includes producers of solar power and wind power, used to generate electricity. Also includes companies that generate electricity and/or power through alternative energy sources such as biogas, biomass, clean energy, geothermal, waste, water and waves. Excludes electric transmission companies and utility distribution companies classified in the Electric Utilities Sub-Industry.

VI. REVIEW OF THE DEFINITIONS OF THE COAL & CONSUMABLE FUELS AND DIVERSIFIED METALS & MINING SUB-INDUSTRIES

Rationale for the Review

While MSCI and S&P have been very consistent about where we have classified companies that mine for bituminous coal (used for energy production) and metallurgical coal (used for steel production) it might be appropriate to clarify such classification in our published definitions.

The proposed definitions for the new and revised Sub-Industries are:

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.

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 aluminum), salt and borate mining, phosphate rock mining, metallurgical (coking) coal mining used for steel production, and diversified mining operations. Excludes iron ore mining, classified in the Steel Sub-Industry and aluminum mining classified in the Aluminum Sub-Industry. Excludes bituminous (thermal) coal-mining companies classified in the Coal & Consumable Fuels Sub-Industry.

VII. REVIEW OF THE REITS INDUSTRY

In 2006, the global specialization of companies that are defined as some form of property trust (REIT) and the need for real estate asset owners to conduct performance attribution and analysis created the opportunity to create a more granular REITs GICS structure that grouped companies with more focused business activities in new Sub-Industries. Has the health care REIT industry, in particular, gained enough critical mass to warrant its own Sub-Industry?

The Proposed Structure

Based on the rationale above, a proposal for the Real Estate Industry Group is outlined below. In particular, the proposal for the Real Estate Investment Trusts Industry is:

40	Financial (Sector)		Industry		Sub-Industry
4040	Real Estate (Industry Group)	404020	Real Estate Investment Trusts (REITs)	40402010	Diversified REITs
				40402020	Industrial REITs
				40402030	Mortgage REITs
				40402040	Office REITs
				40402050	Residential REITs
				40402060	Retail REITs
				40402070	Specialized REITs
				40402080	Health Care REITs

The proposed definitions for the new and revised Sub-Industries are:

Specialty 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 leisure, hotel/resort and storage properties. It also includes REITs that do not generate a majority of their revenues and income from real estate rental and leasing operations.

Health Care REITs
Companies or Trusts engaged in the acquisition, development, ownership, leasing, management and operation of hospitals, nursing homes, and other health care related properties.

CLIENT FEEDBACK

To participate in this consultation please contact one of these GICS email addresses: clientservice@mscibarra.com or spgics@standardandpoors.com. Or contact your MSCI Barra or Standard & Poor's Account Manager or Representative.

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