S&P Dow Jones Indices

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# Evaluating Sustainable Investment Trends

We are in a period of flux; the world is undergoing multiple complex transitions, but shocks and release of tension could also brighten the risk outlook.[1] Meanwhile, a number of key developments are likely to shape environmental, social, and governance (ESG) trends over the course of 2017. These include:

- The long-term shift to a low-carbon economy and physical natural capital risks;
- Technological change of unprecedented depth and speed;
- A new global economic and geopolitical balance and the associated risk of division and polarization;
- The emergence of the Sustainable Development Goals (SDGs), along with a new generation of (individual) market participants that is increasingly focused on social issues; and
- A stronger institutional focus on long-term risks and opportunities that can affect economic, political and societal development and growth.

Managing these transitions and the deeply interconnected risks they entail will require long-term thinking, investment, and international cooperation. S&P Dow Jones Indices is supporting and driving new and existing ESG efforts through the strategic expansion of its broad range of sustainability index offerings across ESG themes and asset classes.

**Here is our view of how some of the key ESG trends will play out in 2017 and beyond—and influence our strategic decision-making and product development**.

[1] World Economic Forum and Zurich, Global Risk Report 2017, January 2017

- Green finance will likely be supported across the investment value chain and bolstered by the Paris Agreement in 2016, in addition to natural capital risk and efficiencies management.
- The SDGs, which have become a framework for environmental and social investment themes (guided by international norms and universal values)[2] will gain momentum, especially among millennial, value, and impact investors.
- An increasing institutional focus on the long-term investment horizon and value creation will emerge, spearheaded by Focusing Capital on the Long Term's (FCLT's) newly formed NGO initiative.[3]

We will continue to collaborate closely with our strategic research partners, RobecoSAM and Trucost (which was acquired by S&P DJI in 2016), and ESG affiliates across S&P Global, in order to establish and shape the next generation of ESG assessment and investment tools.[4]

## GREEN FINANCE AND GREEN BONDS

2016 lived up to expectations and became the "year of green finance"[5]—crowned by the adoption and ratification of the Paris Agreement, which entered into effect on Nov. 4, 2016.

Green finance will continue to be a major theme in 2017; hence, green bonds—plain vanilla fixed income investments created to fund projects that have positive environmental or climate benefits—have become a pre-requisite to finance climate, transportation, and infrastructure projects, as well as sustainable and community development.

Green finance will continue to be a major theme in 2017.

Although green bonds accounted for less than 0.2% of all bonds issued in 2016, the potential for scaling up is substantial according to the CBI.[6] Over the course of 2017, we are likely to see diversification in the types of issuers and issuances available. There may be an increasing focus on sustainability bonds and the role that (relatively) new types of issuers, such as sovereigns, municipalities, and especially cities, can play.

By 2050, it is expected that 70% of the world's population will be in cities, which means sustainable urban development is becoming a pre-requisite.[7]

2 United Nations System Chief Executives Board for Coordination (CEB), 2030 Agenda for Sustainable Development, Discussion Paper on SDG Implementation, November 13, 2015

3 McKinsey's and CPPIB's "Focusing Capital on the Long Term" (FCLT) initiative (2013) became "FCLT Global" in 2016

4 S&P Global, Green Finance: Scaling Up to Meet the Climate Challenge, COP 22 Report, November 9, 2016

5 UNEP FI, Year of Green Finance – 2016, January 17, 2016

6 Cimate Change Initiative, Scaling Up the Green Bond Markets for Sustainable Development, Consultation Paper, September 2015

7 U.N. City Prosperity Initiative, Metropolitan Cities (CPI-MC) International Conference: Municipal Finance & Urban Economy, July 2016

While “green washing” concerns and a multitude of green bond taxonomies previously led to skepticism among market participants, we expect to see domestic and international standards converge in 2017 as issuers around the world deepen their understanding of standards required to attract international capital.

Alignment and standardization are key; in January 2017, the International Standards Organisation (ISO), the world’s biggest voluntary standards setter, gave the go-ahead to develop official guidelines on climate finance, which could include the first internationally accepted certification of climate performance and alignment with 2°C emissions targets.[8]

In 2017, we will see more domestic and international green and climate finance standards converging and new investment regulation emerging—as issuers around the world are deepening their understanding of standards required to attract international capital.

### Continued Market Opportunity and Momentum for Green Bonds

In 2017, we will see more domestic and international green and climate finance standards converging and new investment regulation emerging.

Over the past decade, green bonds have emerged as a valuable tool to mobilize the global investment community. They can play an important role in engaging institutional market participants in the transition to low-carbon and climate-resilient development and growth[9] in order to meet the United Nations Framework Convention on Climate Change goal[10] of limiting global warming to 2°C above pre-industrial temperatures—and scaling up green bond issuances for sustainable development has become a key aim.[11]

Since the first green-labeled bonds were issued by the European Investment Bank in 2007[12] and the World Bank[13] in 2008, demand for green bonds has increased significantly. According to the Climate Bonds Initiative,[14] the total amount of green-labeled bond issuances amounted to USD 42.2 billion at the end of 2015. It then doubled to USD 86.1 billion at the end of 2016, supported by large-scale issuances from China.

China was the largest green bond issuer in 2016, with onshore green bond issuances reaching RMB 201.7 billion (USD 29.2 billion)[15] (see Exhibit 1).

[8] See Responsible Investor.com, International Standards Organisation (ISO) kicks off work to create world’s first climate finance standard, January 24, 2017

[9] World Bank, Zurich, Mirova, Pension Fund Service Local Government, April 2015

[10] UNFCCC, Framework Convention on Climate Change, Copenhagen, December 7 - December 8, 2009

[11] CBI/UNEP FI, Scaling Up Green Bond Markets for Sustainable Development, November 2015

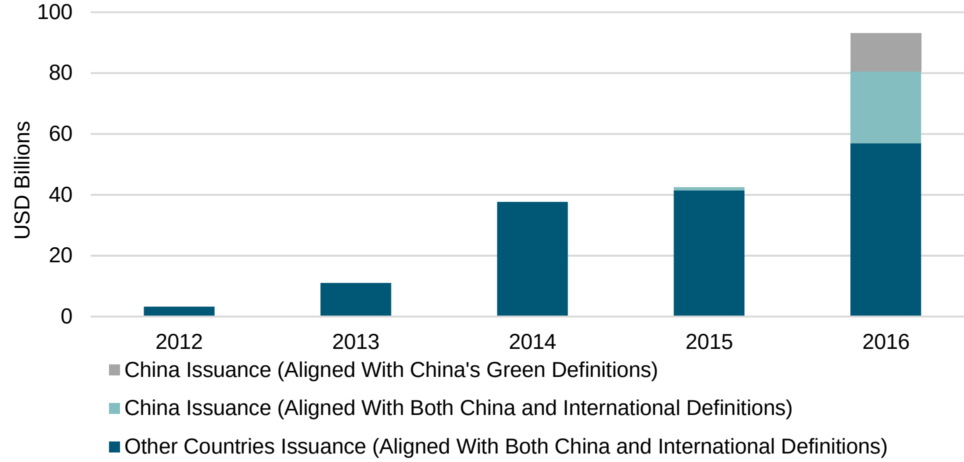
[12] EIB, EIB issues first Green Bond of 2016, October 2015

[13] The World Bank, World Bank and SEB Partner with Scandinavian Institutional Investors to Finance “Green” Projects, Nov. 2008

[14] Climate Bonds Initiative, Green Bonds Market Report, 2016

[15] Climate Bonds Initiative, China Green Bond Market 2016 Report, January 2017

**Exhibit 1: Labeled Green Bond Market Growth Led by China**




Source: Climate Bonds Initiative, China Green Bond Market 2016. Chart is provided for illustrative purposes.

The speed and scale at which the green bond market could develop in 2017 and beyond relies on multiple variables.

In 2017, China will likely reaffirm its position as a global leader in green finance, sustainability, and in maintaining globalization as a pathway for the world's economies.[16]

## Defining "Green" – From Multiple Taxonomies to the Alignment of Green Bond Standards

The speed and scale at which the green bond market could develop in 2017 and beyond relies on multiple variables, including policy and regulatory factors, market conditions, and financing trends.[17] It faces a range of specific challenges and barriers, such as underdeveloped domestic bond markets, issuers' views on costs versus benefits, a mismatch between projects, bonds, and institutional investors, and a lack of commonly accepted green standards and definitions.[18]

Since their inception in 2014, the Green Bond Principles (GBPs), a set of voluntary process and reporting guidelines for the use of proceeds of green bonds,[19] have been at the center of the effort to promote voluntary principles for green finance. The principles have achieved broad market acceptance, as well as recognition by policy makers and regulators.

**The four core Green Bond Principles (GBPs) cover:**

- Use of proceeds;
- Processes for evaluation and selection;
- Management of proceeds; and
- Reporting.

[16] See, Climate Bonds Initiative, China Green Bond Market 2016 Report, January 2017, for details

[17] OECD/Bloomberg, Green Bonds - Mobilising the Debt Capital Markets for a Low-Carbon Transition, December 2015

[18] G20 Green Finance Study Group, G20 Green Finance Synthesis Report, September 5, 2016

[19] ICMA, "Green Bond Principles," April 2014

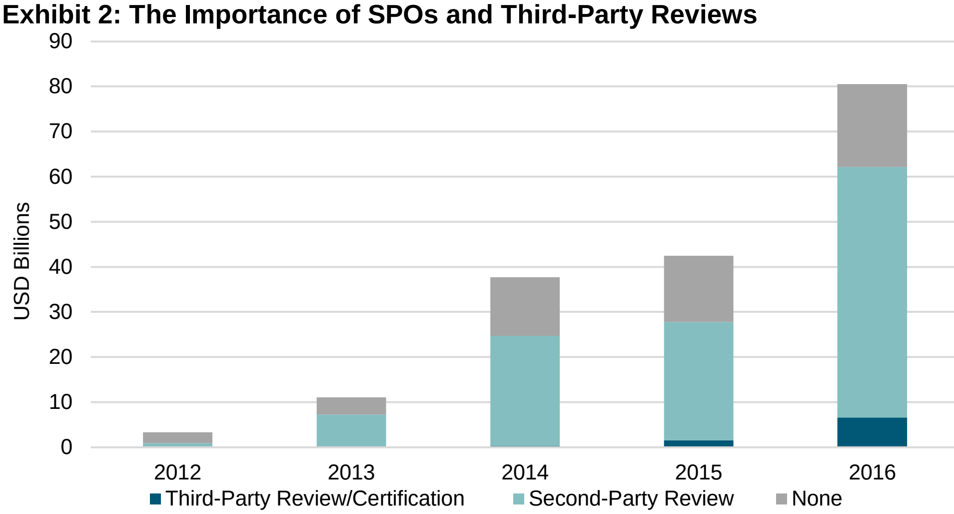
HSBC is calling for a single metric to measure the environmental impact of green bonds to speed market growth.

Some markets, such as China, have attempted to align their domestic green bond guidelines and standards with international market definitions—76% of all bonds issued by Chinese issuers are in line with international definitions of green and the Climate Bonds Taxonomy.[20] Meanwhile, HSBC is calling for a single metric to measure the environmental impact of green bonds to speed market growth.[21]

This alignment is overdue; over the past two years, multiple taxonomies in line with the GBPs have been developed to provide market participants with confidence in the issuer's claims regarding the environmental (or sometimes social) credentials of the bond.

They include second-party opinions and third-party reviews, such as the Climate Bonds Initiative (CBI) Standard, as well as the government-backed "Green Bond Guidelines" and a "Green Bond Endorsed Project Catalogue" published by the People's Bank of China and the Green Finance Committee of China Society of Finance and Banking in 2015-2016. They are now widely used to verify the "green credentials" of green bond issuances around the world (see Exhibit 2).

**Exhibit 2: The Importance of SPOs and Third-Party Reviews**




Source: Climate Bonds Initiative, Green Bond Market 2016. Chart is provided for illustrative purposes.

In addition, four stock exchanges around the world—the Luxembourg Stock Exchange, Oslo Stock Exchange, London Stock Exchange, and Bolsa Mexicana de Valores (BMV)—have launched green bond listing requirements and trading models.[22] Meanwhile, the Shenzen Stock Exchange and Shanghai Stock Exchange launched green bond pilot programs in early 2016 and the Stockholm Stock Exchange has created a list of sustainable bonds that now also include social impacts.

[20] Climate Bonds Initiative, China Green Bond Market, January 2017

[21] Responsible Investor, Green Bond Round Up, January 17, 2017

[22] See Climate Bonds Initiative, China Green Bond Market, January 2017, for more details

Over the course of 2017, we can expect to see further standardization and alignment of green bond assessment frameworks, as called for in the September 2016 "G20 Communiqué on Green Finance,"[23] multiple market participant commitments[24] and NGO initiatives,[25] and the Bank of England's Mark Carney[26]—who also recommended that policymakers look at tax incentives to encourage market growth.

These developments should provide more clarity on green finance definitions, facilitate cross-border investment in green and social bonds, and improve the measurement of green finance activities and their impacts.

**Over the past few years, S&P DJI has undertaken multiple efforts to support green bond market growth, transparency, and disclosure.**

- In 2014, we launched one of the first green bond indices, the S&P Green Bond Index.[27] The S&P Green Bond Index is designed to measure a global universe of bonds that are labeled "green" by their issuers, with an additional filter applied. There are currently no restrictions in relation to the size, type, currency, or jurisdiction of the issuer. The index is designed to provide transparency into the characteristics of the green bond market and to independently track and report its performance. Hence, it is defined by a set of transparent eligibility criteria. In addition, bonds must be flagged as "green" by the CBI to be eligible for index inclusion. The vast majority of the constituents carry top investment-grade ratings.
- In 2017, we will focus our efforts to assist the market by focusing on new ETF-linked projects, evaluating the opportunity set for a sustainability bond index and a green impact bond index, based on S&P Global Ratings' new Green Bond Evaluation Tool.

Natural capital risk and efficiencies management, have gained ground and will remain key areas of focus for 2017 and beyond.

## NATURAL CAPITAL RISK MANAGEMENT (THE "E" IN ESG)

In the lineup for COP 21 in 2015 and the Paris Agreement in 2016, market participants' interest in environmental issues centered first and foremost on low-carbon strategies. While decarbonization and energy transition risks remain key areas of market participant interest globally, other environmental themes, in particular natural capital risk and efficiencies management, have gained ground and will remain key areas of focus for 2017 and beyond.

[23] G20, Leaders' Communique Hangzhou Summit 2016, September 2016

[24] Most notably the "Paris Green Bond Statement," which was signed by 27 investors representing over USD 11.2 trillion of total AUM, in December 2015, see Climate Bonds Initiative, The Paris Green Bonds Statement, December 2015

[25] Responsible Investor, Green Bond Market Roundup, November 1, 2016

[26] Mark Carney, Resolving the Climate Paradox" Address by Mark Carney BoE Gov. & FSB Chair: Arthur Burns Memorial Lecture, Berlin, September 22, 2016

[27] See the S&P Green Bond Index for more information

This comes as no surprise; conventional economic development models viewed environmental protection as a "luxury good." This thinking explains why the dramatic growth in global income (80-fold in real terms during the last century) was accompanied by a decline in natural capital in 127 of 140 countries, according to the United Nations Environment Programme (UNEP).[28] In addition, a report by the University of Cambridge found that greenhouse gas emissions released by human activities are adding energy to the Earth's ecosystem at a rate equivalent to the detonation of four nuclear bombs every second (2015).[29]

Natural capital encompasses all living aspects of nature and ecosystem services.

### From Carbon to Water to Biodiversity—Understanding Natural Capital Risks

Natural capital encompasses all living aspects of nature and ecosystem services,[30] such as life and fish stocks, as well as non-living aspects, such as minerals, and renewable, replenishable, or non-renewable resources, like fossil fuels. However, natural capital is not just an abstract concept; it supports life, livelihoods, and societal wellbeing. Hence, it has essentially infinite value for society and the economy—value that is currently at risk.

- The UNEP (2010) estimated that ecosystems have a value of USD 72 trillion, four times the GDP of the EU.[31] However, all too often, nature's goods and services remain unpriced and undervalued—at worst, they remain economically invisible.
- From 2008 to 2015, an average of 26.4 million people were displaced from their homes by natural disasters each year[32]—equivalent to almost one person every second. One-third of the world's arable land is now jeopardized by land degradation, which causes economic losses of USD 6.3-10.6 trillion per year, according to the Economics of Land Degradation Initiative and the United Nations Convention to Combat Desertification.[33]
- With a growing population of almost 7.5 billion people, a decreasing stock of raw materials, and an increasingly fragile natural environment, species, a fundamental part of the ecosystem, are also at risk. According to a report by the World Wildlife Fund, Earth has already lost one-half of its wildlife in the past 40 years.[34]

[28] UNEP, Inclusive Wealth Report, 2014

[29] University of Cambridge, Centre for Science and Policy, Climate Change – A Risk Assessment, 2015

[30] European Environment Agency, Protecting, conserving and enhancing natural capital, January 14, 2016

[31] UNEP, Dead Planet – Living Planet: Biodiversity and Ecosystem Restauration for Sustainable Development, 2010

[32] International Displacement Monitoring Centre, Global Estimates 2015: People displaced by disasters, July 2015

[33] UNCCD/ELD Initiative, The Value of Land, September 2015

[34] WWF, Living Planet Report, 2016

- Worldwide, the ecological footprint per capita is growing at an increasing rate, and the impact of a rising "ecological deficit" can be witnessed through deforestation, soil erosion, depletion of water resources, and the accumulation of greenhouse gases in the atmosphere. The Global Footprint Network reported in 2015 that the world's population currently consumes the equivalent of 1.6 planets and that this figure could rise to two planets by 2030, based on current trends.[35]

### Defining and Measuring Natural Capital Risk and Efficiency

Natural capital accounting factors have been defined as carbon, water, waste, biodiversity, forestry, agriculture, and other land use. However, identifying, measuring, and benchmarking these natural capital factors in the context of (interconnected) risks, opportunities, and impact has been challenging.

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This will hopefully change soon, given multiple developments in 2016 at the corporate level and among financial institutions.

- With the help of the Natural Capital Protocol, the Natural Capital Coalition has attempted to provide a standardized framework for businesses to identify, measure, and value their direct and indirect impacts and dependencies on natural capital.
- The Natural Capital Finance Alliance (formerly the Natural Capital Declaration), a leading global finance-led initiative, announced that it is streamlining its efforts to mandate and engage with financial institutions to better understand natural capital risks, pursue opportunities, and establish the foundation for resilient, long-term economic growth that protects nature and societies.[36]

In 2017, we can expect an even stronger collaboration between these initiatives, resulting in the alignment of natural capital guidelines and assessment models as previously outlined. This may also lead to increased understanding and focus on environmental issues in the market—which, in turn, could leverage the development of new products, such as benchmarks and risk assessment tools.

**At S&P DJI, we are supporting global investor, corporate, and regulatory developments in the context of preserving natural capital, mitigating risk, leveraging resilience, and identifying green impact across asset classes.**

[35] Global Footprint Network/The Guardian, Humans have already used up 2015's supply of Earth's resources – analysis, Aug. 12, 2015

[36] Natural Capital Finance Alliance, Natural Capital Declaration changes name to become Natural Capital Finance Alliance, Oct. 26, 2016

- Over the past few years, S&P DJI has issued a series of climate-friendly indices that aim to reflect reduced carbon footprints by underweighting and overweighting issues based on production-related emissions or excluding companies that own fossil fuel reserves.[37]
- In 2017, we will explore a series of indices that will focus on natural capital implications, such as carbon-, water-, and waste-related risk, as well as efficiencies management.

## SUSTAINABLE DEVELOPMENT, HUMAN CAPITAL MANAGEMENT, AND SOCIAL INCLUSION (THE "S" IN ESG)

Let us move beyond green. In 2017, we can expect to see increasing interest in social themes among market participants across asset classes, along with a new mindset shift among institutions and individuals that can be described as movement from COP22 ("E") to sustainable development goals ("E+S") and the 2030 Agenda[38]—and with a focus on investing with impact.

The U.N. SDGs are becoming a de facto framework for bringing together market participants, companies, governments, and citizens with the aim of protecting the planet, ending poverty, and promoting peace, prosperity, and global partnerships.

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The goals cover a range of environmental themes, such as climate and water risk, and social themes, such as equality, diversity and inclusion, health and wellbeing, education, human capital management, human rights, etc. (see Exhibit 3).

**Exhibit 3: The 17 U.N. Sustainable Development Goals (SDGs)**


Source: U.N. Sustainable Development Goals, 2015. Chart is provided for illustrative purposes.

[37] Please see the S&P Global 1200 Carbon Efficient Index, S&P Global 1200 Fossil Fuel Free Index, and S&P Global 1200 Fossil Fuel Free Carbon Efficient Index and their respective methodologies

[38] UN, Sustainable Development, Sustainable Development Goals (2015)

## Addressing Inequalities Through Inclusion and Effective (Human) Governance

Recently, multiple factors have led to a focus on social themes.

- Multi-stakeholder advocacy programs to promote and enable human rights, gender diversity, equality, innovation, and inclusion.
- Policy and regulatory commitments such as the Dodd-Frank Act in the U.S.,[39] which requires companies to disclose pay gap ratios (the UK is discussing a similar framework),[40] and the EU Directive for Disclosure of Non-Financial Information and Diversity[41].
- Green and social finance and investor network initiatives such as the Principles for Responsible Investment (PRI) working groups or the SDG Coalition (2016).

Thus, social topics have made it onto the agendas of market participants—and it seems they are here to stay, for 2017 and beyond. Many social factors, such as equality, inclusion, and diversity, are closely interconnected and have real face value in the context of human capital management and governance.

Meanwhile, an important determinant of a company's and country's competitiveness is and remains its human talent.

## Wealth and Gender Inequality

In particular, wealth and income inequality, and the vast and growing gap between rich and poor (presumably one of the drivers behind the recent support for populist sentiment), is a leading risk factor that has been laid bare in a recent Oxfam report showing that the world's eight richest people have the same amount of wealth as the poorest 50%.[42]

A recent study by the Economic Policy Institute in the U.S.[43] has shown that the wealth gap also translates into the income gap—as there are increasing gaps between the top 1% of earners and the rest of the population. In some countries, such as the U.S., the pay ratio has grown to 300-to-1 from 30-to-1 four decades ago.

[39] Section 953(b) of the Dodd-Frank Consumer Protection and Wall Street Reform Act (Dodd-Frank Act; P.L. 111-203), known as the "pay ratio provision," requires the Securities and Exchange Commission (SEC) to write rules to implement a requirement that public companies disclose the ratio between the total compensation of a company's chief executive officer (CEO) and the median compensation of all other employees

[40] UK Government, Department for Energy, Business & Industrial Strategy, Corporate Governance Reform, Green Paper, November 2016

[41] EU Commission, Directive 2014/95/EU: Disclosure of non-financial and Diversity Information, 2014

[42] Oxfam, An Economy for the 99%, January 2017

[43] Economic Policy Institute, Top CEOs Make 300 Times More than Typical Workers, June 21, 2015

Meanwhile, an important determinant of a company's and country's competitiveness is and remains its human talent—the skills and productivity of its workforce.

In this context, female talent has a strong role to play, as multiple studies show that gender diversity and having more women in the workforce contribute to stronger economic and corporate social responsibility performance and a better understanding of multi-stakeholder needs.

- One study by Credit Suisse[44] showed that diversity on boards can bring unique points of view to help mitigate business risks and positively contribute to long-term returns.
- Other studies have found that a board that lacks diversity may be at risk of group think, less innovative, and more risk averse.[45]
- According to the World Economic Forum,[46] greater female participation in the U.S. workforce since 1970 accounts for one-quarter of current GDP, while advancing women's equality can add USD 12 trillion to global growth (see Exhibit 4),[47] according to two recent reports by McKinsey & Company.

Studies have found that a board that lacks diversity may be at risk of group think, less innovative, and more risk averse.

**Exhibit 4: Advancing Gender Equality for Global GDP Growth**

| REGION | INCREMENTAL 2025 GLOBAL GDP OVER BUSINES-AS-USUAL SCENARIO (%) | INCREMENTAL 2025 GLOBAL GDP OVER BUSINES-AS-USUAL SCENARIO USD TRILLION |
|---|---|---|
| India | 16% | 0.7 |
| Latin America | 14% | 1.1 |
| China | 12% | 2.5 |
| Sub-Saharan Africa | 12% | 0.3 |
| North America and Oceania | 11% | 3.1 |
| World | 11% | 11.8 |
| Middle East and North Africa | 11% | 0.6 |
| South Asia (excl. India) | 11% | 0.1 |
| Western Europe | 9% | 2.1 |
| Eastern Europe and Central Asia | 9% | 0.4 |
| East and South East Asia (excl. China) | 8% | 0.9 |

Source: McKinsey Global Institute, The Power of Parity (2015). Table is provided for illustrative purposes.

[44] Credit Suisse conducted a study that shows that, between 2012 and 2014, companies with market cap of more than USD 10 billion, with at least one woman on the board, outperformed their peers by five percentage points on a sector-neutral basis. Credit Suisse, The CS Gender 3000 Women in Senior Management, Office of the New York City Comptroller: Boardroom Accountability Project, September 2014

[45] UK Government, Department for Business, Innovation & Skills: Government Introduces Largest Ever Increase to Apprentice Wages, October 1, 2015

[46] McKinsey & Company, Unlocking the full potential of women in the U.S. Economy, 2011

[47] McKinsey & Company, The Power of Parity – How Advancing Women's Equality can add USD 12 Trillion to Global Growth, September 2015

This debate ultimately leads to another key issue that will likely influence multiple discussions in 2017 and beyond: gender pay gaps. Some studies have also shown that the reduction in the male-female employment gap has been an important driver of European economic growth over the past decade. In general, closing this gender gap would have massive economic implications for developed economies, potentially boosting U.S. GDP by as much as 9% and Eurozone GDP by as much as 13%.[48]

Thus, it comes as no surprise that many institutional market participants and public policymakers are increasingly focused on gender and diversity themes, also in the context of addressing existing gender pay gaps, in an effort to meet the requirements set up by the fifth SDG, female empowerment.

The effects of these social risks have resulted in new regulations requiring pay disclosure or minimum wage increases and, in some cases, employee lawsuits. They have also led to increasing pressure from market participants on these issues (as in the case of Sports Direct in the UK[49]) and they have hence led to reputational risks, workplace disruption, and loss of skill, as well as higher wage and recruitment costs—all of which could affect valuation.

A recent report from international law firm Seyfarth Shaw[50] found that workplace legal actions in the U.S. increased in 2015 for the sixth consecutive year to reach a record high, and the monetary value of the top 10 settlements related to poor payment practices totaled USD 463.6 million in 2015—more than double the amount for 2014 and 2013, respectively.

In 2017, gender and income inequality will remain high on the investor and policy agenda.

Hence, in 2017, gender and income inequality will likely remain high on the investor and policy agenda as key indicators for poor employee and human capital management practices and performance that can have a negative impact on corporate performance and valuations, and ultimately on economic prosperity and GDP growth.

### Investing With Impact—the Role of the SDGs in a "Mixed Economy"

In 2017, we can expect to see a continued shift toward a more "mixed economy," in which the dividing line between private and public activities to "make the world a better place," as well as financial and non-financial gains, becomes increasingly blurred.

This shift goes hand in hand with an increasing focus on the SDGs, the debate around "business with purpose," and the emergence of a new type

[48] Goldman Sachs, Gender Inequality, Growth and Global Ageing, Global Economics Paper No: 154, April 3, 2007

[49] See e.g. CIPD/People Management, Sports Direct condemned for 'appalling' HR practices, July 22, 2016 for more details

[50] Seyfarth Shaw, 12th Annual Workplace Class Action Report, 2016

of investor (particularly among millennials) that is increasingly concerned with investment outcomes and with impacts beyond financial results.

"Mixed economy" market participant and associated preferences can be categorized along three major dimensions:

- **Values and beliefs** (e.g., avoiding businesses involved in controversial activities);
- **Impact** (e.g., capturing measurable social returns); and
- **Long-term horizon** (e.g., mitigating against water scarcity, energy costs, or climate change).

Furthermore, we have seen alignment and standardization of factors, guidelines, and frameworks in impact investing.

A new study on global impact investment trends released by the Global Impact Invest Network (GIIN) found that the 62 impact investors surveyed reported substantial growth, from USD 25.4 billion to 35.5 billion, between 2013 and 2015.[51]

Most recently, UBS announced its commitment to invest at least USD 5 billion of private client assets to SDG-related impact investing,[52] in a strategy that includes partnering with the Rise Fund, which is backed by a range of well-known, high-net-worth individuals, including U2's Bono and Virgin tycoon Richard Branson.[53]

Furthermore, we have seen alignment and standardization of factors, guidelines, and frameworks in impact investing. In January, an initiative was launched to help align business and investment with the SDGs.[54] The Principles for Positive Impact Finance are a set of high-level guidelines, designed to provide a common yet flexible framework for the business and finance community to identify and develop positive impact activities, entities, and projects.

**At S&P DJI, we have developed a range of indices that explore holistic sustainability and social themes.**

- In 2016, we launched the JPX/S&P CAPEX & Human Capital Index. This index is designed to measure the performance of leading companies in the Japanese equity market in terms of capital expenditures (CAPEX), growth and efficiency, and investments in human capital. CAPEX efficiency and growth are captured through a quantitative measure based on published numbers in public filings, while the human capital metric is captured through three

[51] GIIN, Impact Investing Trends, December 2016

[52] UBS, Mobilizing private wealth for public Good, White paper for World Economic Forum 2017, January 2017

[53] Responsible-Investor.com, UBS commits $5bn to Sustainable Development Goals-related impact investing, Jan. 17, 2017

[54] Environmental Finance, Investment principles to be launched to help meet Sustainable Development Goals, Jan. 23, 2017

pillars: human capital development, talent attraction and retention, and labor practice indicators and human rights.

- In 2017, we plan to evaluate additional social themes, such as gender diversity and inclusion, human rights and global norms, well-being, and social impact.
- An up-and-coming focus area for fixed income market participants is social bonds, which are commonly issued by communities, states, and cities to fund social projects. Social and sustainability bonds will also play a role in our strategic decision making regarding new index products.

## LONG-TERM VALUE CREATION—STRATEGY

**In 2017, long-term value creation (LTVC), in conjunction with active ownership, transformational change, and stewardship, remain key areas of focus for asset owners and other market participants across the investment value chain.**

The debate between corporations and investors about long- versus short-term business goals, reporting cycles, and value creation has been ongoing for more than 30 years, yet the literature on this topic[55] remains ambiguous. Companies often forego long-term-value-creating activities and investments in favor of short-term results, based on the belief that this is in the best interests of their shareholders.[56]

A paradigm shift has taken place across the investment value chain.

However, over the past five years, a paradigm shift has taken place across the investment value chain, driven by the ever-growing influence of the U.N.-backed PRIs and leading global asset owner initiatives.

This shift has been supported by innovative sustainability concepts, such as Towers Watson's transformational change model,[57] which looks at time horizon, externalities, organizational design, governance, and the behavioral context of market participants' goals. Another example is Tomorrow's Company's[58] concept for capital markets to better align incentives, the interests of beneficiaries, and business strategy. Many have also explored the interconnectedness of ESG trends, risks, and patterns.[59]

[55] Harvard Business Review, Yes, Short-Termism Really is a Problem, October 9, 2015

[56] Harvard Business Review, Profits without Prosperity, September 2014

[57] Towers Watson, We need a Bigger Boat – Sustainability in Investment, September 2012

[58] Tomorrow's Company/Aviva et al, Tomorrow's Capital Markets, 2012

[59] World Economic Forum and Zurich, Global Risk Report 2017, January 217

Nowadays, many market participants (such as BlackRock's Larry Fink[60]) have become public advocates for better corporate governance practices—in the broader context of creating and preserving long-term shareholder and stakeholder value.

All of this has paved the way for more integrated thinking, decision making, and collaboration to preserve value(s) for the long term. These developments have also shifted market participant interest toward active ownership, transformational change, and stewardship, while mandating integrated investment decision making for the long term.

**Long-Term Horizon Investing and Value Creation Are Here to Stay**

Multiple bodies and initiatives have called for new systems to encourage integrated investment decision making and for the consideration of accounting principles and reporting mechanisms that can drive LTVC.

Short-termism (or "quarterly capitalism") is defined as companies' fixation on managing for the short term, with decisions driven by the need to meet quarterly earnings, even at the expense of long-term investment. It has the potential to be problematic, as underinvestment can impede future economic growth, resulting in low GDP growth, high unemployment levels, and lower future investment returns for savers.

Various market participants have begun to realize that one of the most effective ways to deal with short-termism may be to change the strategies and approaches of those who control the capital: the asset owners, as universal owners.[61]

Meanwhile, multiple bodies and initiatives such as the International Integrated Reporting Council (IIRC), the International Corporate Governance Network (ICGN), the FCLT Initiative, Mercer's "Manifesto on Fair Capitalism,"[62] and Professor Kay's 2014 "Review of UK Equity Markets and Long-Term Decision Making"[63] have called for new systems to encourage integrated investment decision making and for the consideration of accounting principles and reporting mechanisms that can drive LTVC.

In 2016, these developments gained momentum—they are likely to shape the investment landscape for years to come, supported by Stewardship Codes and new investment regulation.[64]

[60] Blackrock, Larry Fink's 2016 Corporate Governance Letter to CEOs, February 1, 2016

[61] Roger Urwin, Pension Funds as Universal Owners: Opportunity Beckons and Leadership Calls, in: Rotman International Journal of Pensions Management, Volume 4, Issue 1

[62] Mercer, Fair Capitalism – A Manifesto for Change, May 2013

[63] UK Government, Department for Business, Innovation & Skills, Kay review of UK equity markets and long-term decision making: implementation progress report, October 27, 2014

[64] These include Corporate Disclosure and Investor Regulations, see e.g. PRI / MSCI, Global Guide to Responsible Investment Regulation Guide, 2016, for more details

At S&P DJI, we are exploring new index ideas for encouraging active/passive implications, active ownership, and ultimately stewardship for sustainable, long-term investment strategies.

- Canada Pension Plan Investment Board's (CPPIB) and McKinsey & Company's "Focusing Capital on the Long Term" initiative,[65] which had been set up to promote long-term behavior to institutional investors and companies, is set to gain further momentum over the course of 2017 via the creation of the FCLT not-for-profit organization in July 2016.
- In December 2016, IIRC and ICGN issued a joint statement in which they suggested practical ways to encourage longer-term thinking and behaviors by capital market participants.[66]
- CPPIB and S&P Dow Jones Indices developed a new multifactor index that seeks to address short-termism's potential undermining of global economies. The S&P LTVC Global Index, launched at Davos in 2016, aims to identify companies that embody long-termism through business viability and operational excellence and give long-term market participants a liquid equity index that seeks to track the performance of these like-minded companies. The index uses a unique "vintage" approach for constituent management, whereby constituent stocks are selected annually for inclusion in a "vintage" year. These vintages remain in the index for a rolling three-year period—reflecting a longer-term holding philosophy.

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**We conclude with a look back to move forward: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987).[67]**

[65] Focusing Capital on the Long Term, Long Term Portfolio Guide - Reorienting portfolio strategies and investment management to focus capital on the long term, March 2015

[66] ICGN / IRRC, Dialogue for longer-term value creation, December 2016

[67] World Commission on Environment and Development, Our Common Future, (Brundtland Report), 1987

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