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ACCOUNTING FOR SUSTAINABILITY

Measuring and Disclosing Environmental, Social and Governance (ESG) Data

"I tell you that virtue is not given by money, but that from virtue comes money and every other good of man, public as well as private"

Plato, "The Apology of Socrates"

Larry Fink, the CEO of BlackRock, in his most recent [annual letter to executives](#) (CEOs) stated that his firm would avoid investments in companies that "present a high sustainability-related risk" and more specifically:

*"We believe that all investors, along with regulators, insurers, and the public, need a clearer picture of how companies are **managing sustainability-related questions**. This data should extend beyond climate to questions around how each company serves its full set of stakeholders, such as the diversity of its workforce, the sustainability of its supply chain, or how well it protects its customers' data. Each company's prospects for growth are inextricable from its ability to operate sustainably and serve its full set of stakeholders."* [Larry Fink 2020 letter to CEO](#)

In this spirit, the main objective of the class is to learn how to measure, disclose and evaluate ESG performance. We will examine how firms respond to the sustainability calls by investors, customers, employees, and governmental bodies.

The course will provide you with the practical knowledge and insights for: 1) integrating sustainability indicators into daily decision-making from a managerial, internal perspective; 2) disclosing and interpreting sustainability information using several international reporting frameworks such as: SASB, GRI, TCFD, AA1000, CDP, <IR>; 3) assessing ESG performance from an analyst, external perspective.

COURSE DESCRIPTION AND OBJECTIVES:

All companies are currently addressing and evaluating issues related to sustainability.

On the one hand, companies realize that implementing sustainability management mechanisms is beneficial. Firms can improve their risk management (e.g. environmental, regulatory, technological, and reputational risks ...), as well as create value to stakeholders through

efficiencies and innovation. A large number of firms are developing sustainability strategies¹ and including sustainability managers in their organization and executive boards (e.g. Apple, Coca-Cola, Kering, Shell, NIKE).

On the other hand, investors recognize that “to prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society”.

A company cannot achieve long-term profits without embracing purpose and considering the needs of a broad range of stakeholders. A pharmaceutical company that hikes prices ruthlessly, a mining company that shortchanges safety, a bank that fails to respect its clients – these companies may maximize returns in the short term. But, as we have seen again and again, these actions that damage society will catch up with a company and destroy shareholder value. By contrast, a strong sense of purpose and a commitment to stakeholders helps a company connect more deeply to its customers and adjust to the changing demands of society.” [Larry Fink 2020 letter to CEO](#)

The main question is how to manage companies that aim to integrate social and environmental concerns into their business operations as well as their interaction and engagement with stakeholders.

Accounting enables corporations to do exactly that. It plays a vital measurement role in providing the necessary information for internal decisions and for disclosing sustainability-related performance to all stakeholders. Just like Managerial and Financial Accounting provided tools in the measurement, planning and control of the economic aspects of an organization, broader techniques of sustainability accounting have the potential to become accountability mechanisms for social and environmental impacts.

The main goal of the “accounting for sustainability” process is to make explicit the “business case for sustainability” (i.e., the impact of sustainable strategies on revenue growth, cost reductions, employees productivity, investment and asset optimization, financial and operating risk). The focus is on the internal and external reporting systems to make sure the “business case for sustainability” is executed.

From an internal perspective:

Traditional performance measurement systems based on shareholder value are inadequate for sustainability management. We will analyze how to provide managers with innovative systems that generate appropriate information required for the measurement of sustainable value. You

¹ The United Nations have released the newly established [Sustainable Development Goals](#) (SDGs) that define sustainable development targets to be reached by 2030, and affect corporate sustainability strategies.

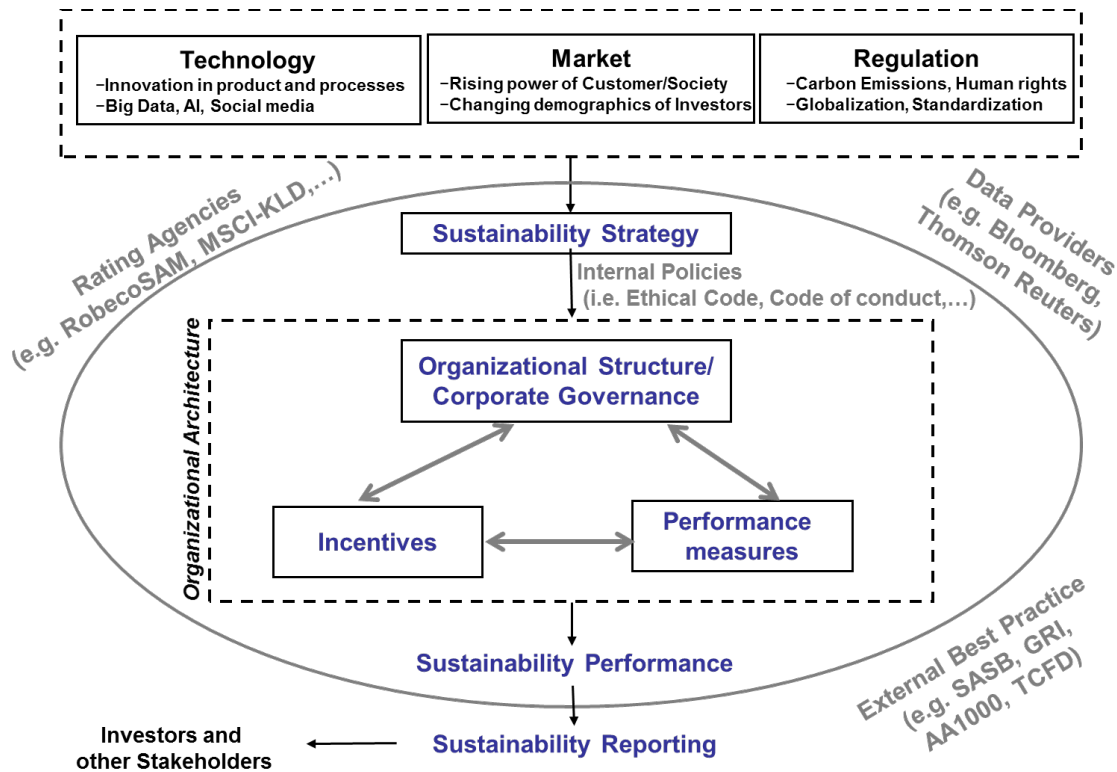
will gain familiarity with both: theoretical frameworks (e.g. [Sustainability Dartboard](#), [ROSI](#)) and company specific tool (e.g. [Kering's Environmental Profit and Loss](#), the [Crown Estate's Total Contribution](#)).

From an external perspective:

Sustainability data are today what financial reporting was in the early 1900s: voluntary, not standardize, difficult to compare. However, investors such as Blackrock are requiring ESG disclosure. In his [2020 annual letter](#) to chief executives, Mr Fink wrote that by the end of the year he wanted all companies to “disclose in line with industry-specific” guidelines set out by the SASB the [Sustainability Accounting Standards Board](#), a non-profit organization that sets voluntary financial reporting standards.² You will gain familiarity on how to disclose sustainability information using several international reporting frameworks such as Global Reporting Initiative ([GRI](#)) Standards, Sustainability Accounting Standards Board ([SASB](#)), Task Force on Climate-related Disclosures ([TCFD](#)), AccountAbility's AA1000 Series of Standards ([AA1000](#)), Carbon Disclosure Project ([CDP](#)), <IR> Integrated Reporting, [Business Model reporting by UK Financial Reporting Council](#), and pertinent assurance practices to be applied in relation to sustainability reporting.

Finally, you will learn how to assess the degree of Environmental, Social and Governance (ESG) performance using e.g. [Bloomberg](#), [Thomson Reuters](#), [Truevalue lab](#) and other similar data aggregators. We will also look at the rationale behind the [RobecoSAM's](#) analysis of ESG performance (the output of this analysis is the [Dow Jones Sustainability Index](#)). The figure below illustrates the theoretical framework underlying the course structure.

² In particular, he writes: “BlackRock has been engaging with companies for several years on their progress towards TCFD- and SASB-aligned reporting. This year, we are asking the companies that we invest in on behalf of our clients to: (1) publish a disclosure in line with industry-specific SASB guidelines by year-end, if you have not already done so, or disclose a similar set of data in a way that is relevant to your particular business; and (2) disclose climate-related risks in line with the TCFD's recommendations, if you have not already done so. This should include your plan for operating under a scenario where the Paris Agreement's goal of limiting global warming to less than two degrees is fully realized, as expressed by the TCFD guidelines.”



Students will be exposed to real-world examples of how best-in-class companies have successfully implemented accounting and reporting systems to measure and communicate sustainability.

GRADING:

The course grade will be based on class discussion/professionalism, mini-test, group projects and final exam:

- | | |
|---|-----|
| a. Class discussion and professionalism | 10% |
| b. Mini-Tests | 30% |
| c. Group Project | 30% |
| d. Exam | 30% |

a. Class discussion and Professionalism

The grade for class discussion and professionalism will depend on the quality of your interaction and participation in class discussions and project group activities. Contributing to in-class case analysis by making comments helps moving the discussion toward a better understanding of the companies and issues examined. In evaluating your contribution, I will not emphasize the quantity of comments per se, or on offering the "right" solution. Typically, no single "right" solution exists, and moreover, there is much to be gained if we examine a wide variety of

viewpoints. You can provide a valuable contribution by posing critical questions, raising alternative viewpoints, and providing well-reasoned challenges to expressed views.

b. Mini Tests (individual assessment, collaboration NOT allowed)

Two mini tests are designed to test your knowledge on the topic (both Theoretical and Practical) and readings covered in class. Questions refer to the course material distributed in class.

c. Group Project

The Group project provides an opportunity to get some hands-on experience in evaluating sustainability practices and comparing different firms in the same industry. Students will be engaged in several tasks regarding for instance:

- (a) evaluate the firm the overall vision and strategy with respect to sustainability. Also indicate how this strategy aligns with the 17 UN Sustainable Development Goals
- (b) examine the organization's approach to stakeholder engagement.
- (c) examine the organization's commitment to sustainability through its policies (e.g. Ethic Code, raw material policies, supply chain policies, ...) and certification and management standard (e.g. ISO 14001, SA8000, ...)
- (d) assess the alignment of the organizational structure/corporate governance with the sustainable strategy.
- (e) analyze the alignment of the performance measurement system and the compensation scheme with the sustainable strategy
- (f) analyze how the organization measure its sustainable performance for internal purpose
- (g) evaluate its sustainability reporting and in particular: a) identified the standard/s used by the organizations (GRI, SASB, IR,...); b) assess the ability of the sustainability reporting to link objective with outcome metrics and impact.
- (h) assess how the organization is perceived by Environmental, Social and Governance (ESG) raters (e.g. RobecoSAM,...) and rank the company against competitors in the same industry using Bloomberg terminal.

In groups of max 4 team-members, you will develop a sustainability assessment of 2 companies in the same industry, one of which should be ranked in the [DJSI World](#).

See here all the firms invited to submit the Robeco_SAM questionnaire:

https://assessments.robecosam.com/public/documents/DJSI_Invited_Universe_2019.xlsx

See below an example of firms ranked in the DJSI:

Company name	Ticker	<u>GICS® INDUSTRY GROUP</u>	<u>SAM INDUSTRY</u>	<u>SASB: Primary SICS Sector/Industry</u>
Air France–KLM	AF	Transportation	AIR Airlines	Transportation/ Airlines
Amgen	AMGN	Pharmaceuticals & Life Science	BTC Biotechnology	Health Care/ Biotechnology & Pharmaceuticals
Bank of America Corp	BAC	Banks	BNK Banks	Financials/ Commercial Banks
Caterpillar Inc	CAT	Capital Goods	IEQ Machinery and Electrical Equipment	Resource Transformation/ Industrial Machinery & Goods
Cisco	CSCO	Technology, Hardware & Equipment	CMT Communications Equipment	Technology & Communications/ Hardware
Deutsche Telekom AG	DTEGY	Telecommunications	TLS Telecommunication Services	Technology & Communications/ Telecommunication Services
Goodyear	GT	Automobiles & Components	ATX Auto Components	Transportation/ Auto Parts
Kellogg Co	K	Food, Beverage	FOA Food Products	Food & Beverage/ Processed Foods
Microsoft	MSFT	Software & Services	SOF Software	Technology & Communications/ Software & IT Services
Nike	RL	Consumer Durables & Apparel	TEX Textiles, Apparel & Luxury Goods	Consumer Goods/ Apparel, Accessories & Footwear
Royal Dutch Shell PLC	RDS	Energy	OGX Oil & Gas Upstream & Integrated	Extractives & Minerals Processing/ Oil & Gas - Exploration & Production

For instance, students who selected the Consumer Durables & Apparel industry could assess Nike against other listed firms such as Lululemon, Abercrombie & Fitch Company, Moncler,..... Goodyear could be matched against Michelin or Continental for the industry Automobiles & Components. Air France–KLM can be compared with JetBlue, Delta Air Lines Inc,.... As another example, Royal Dutch Shell, can be compared with ENI, Total, Chevron,....

Ideally, no more than two groups per class should have the same DJSI ranked company. The allocation of companies among groups will follow a first-come-first-serve policy.

Each group will write one report (max 5000 words, excluding tables) in which the 2 firms selected will be compared and contrasted. The sustainability assessment will be presented as a whole rather than as two separate analyses.

ACADEMIC INTEGRITY

Integrity is critical to the learning process and to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one's own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.
- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

The entire Stern Student Code of Conduct applies to all students enrolled in Stern courses and can be found here: www.stern.nyu.edu/uc/codeofconduct

To help ensure the integrity of our learning community, prose assignments you submit to NYU Classes will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

GENERAL CONDUCT & BEHAVIOR

Students are also expected to maintain and abide by the highest standards of professional conduct and behavior. Please familiarize yourself with Stern's Policy in Regard to In-Class Behavior & Expectations (<http://www.stern.nyu.edu/portal-partners/current-students/undergraduate/resources-policies/academic-policies/index.htm>) and the NYU Student Conduct Policy (<https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-student-conduct-policy.html>).

GRADING GUIDELINES

Grading Information for Stern Core Courses

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have adopted a grading guideline for core courses with enrollments of more than 25 students in which approximately 35% of students will receive an "A" or "A-" grade. In core classes of less than 25 students, the instructor is at liberty to give whatever grades they think the students deserve, while maintaining rigorous academic standards.

Grading Information for Stern Elective Courses

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have agreed that for elective courses the individual instructor or department is responsible for determining reasonable grading guidelines.

STUDENTS WITH DISABILITIES

If you have a qualified disability and will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Henry and Lucy Moses Center for Students with Disabilities (CSD, 998-4980, www.nyu.edu/csd) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the CSD, you must submit a completed Exam Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation.

SCHEDULE:

Date	Session Title	Session Topics	Assignment
Session 1 September X	What do we talk about when we talk about accounting for sustainability?	<ul style="list-style-type: none"> – Introduction and course logistics – Sustainable strategy and Sustainable Development Goals – A framework to assess the impact of Sustainability on Organizational Processes, Performance and Reporting 	
Session 2 September X			Form Groups
Session 3 September X	How to get ESG Data	<ul style="list-style-type: none"> – ESG Rating and Scores: the good, the bad and the ugly – Guest Speaker: Justin Borges, ESG Data Analyst, Bloomberg 	
Session 4 September X	Disclosing Sustainability: an external perspective Why and How firms disclose ESG data to external Stakeholder	<ul style="list-style-type: none"> – Stakeholder Engagement (AA1000) – How to disclose ESG performance: Shareholder perspective (SASB) vs Stakeholder perspective (GRI) – Task Force on Climate-related Disclosures (TCFD), Carbon Disclosure Project (CDP), Integrated Reporting <IR> – Sustainability reporting assurance 	
Session 5 September X			
Session 6 September X			
Session 7 September X	PIRELLI case study	<ul style="list-style-type: none"> – Guest Speaker: Filippo Bettini: Head of Sustainability and Risk Governance (PIRELLI S.p.A.) 	Mini-Test 1
Session 8 September X	Measuring Sustainability: an internal perspective A Performance Measurement System For Sustainability	<ul style="list-style-type: none"> – Reporting for internal decision making – Drivers of Sustainability (input, output and outcome metrics) – Accounting tools to measure sustainability and trade-off between Stakeholders – Return on Sustainability Investment (ROSI™) methodology to monetize the benefits of sustainable practices. Guest Speaker: Ulrich Atz Research Associate Center for Sustainable Business (CSB) 	
Session 9 October X			
Session 10 October X			
Session 11 October X	Sustainability in Capital markets: Why and How investor use ESG Information?	<ul style="list-style-type: none"> – Principle for Responsible Investment – ESG: the stewardship revolution 	
Session 12 October X		<ul style="list-style-type: none"> – Guest Speaker: Dinah A. Koehler, Equity Strategist and Director UBS Asset Management 	Mini-Test 2
Session 13 October X	GUCCI (Kering Group) case study	<ul style="list-style-type: none"> – Guest Speaker: Andrea Pini: CFO North America at Gucci (Kering Group) 	Group Project
Session 14 October X	Final Exam		

SESSION OUTLINE

PART 1: What do we talk about when we talk about “accounting for sustainability”?

Session 1	<i>Introduction to measuring, disclosing</i>	September X
Session 2	<i>and driving sustainability</i>	September X

Topics	<ul style="list-style-type: none"> ▪ Introduction and course logistics ▪ Shareholder vs Stakeholder theory ▪ What inspire a sustainable strategy: Sustainable Development Goals ▪ A framework to assess the impact of Sustainability on Organizational Processes, Performance and Reporting: Organizational architecture
Readings	<p><i>Pre-Readings:</i></p> <ul style="list-style-type: none"> – Economist, T. (2019). Big business is beginning to accept broader social responsibilities. The Economist, Aug 22nd 2019. – Hespenheide E.J., Dr. Dinah A. Koehler.2013. Drivers of long-term business value Stakeholders, stats, and strategy. Deloitte – Porter M.E., Serafeim G., Kramer M. Where ESG fails <p><i>Mandatory:</i></p> <ul style="list-style-type: none"> – Serafeim, George, and Jody Grewal. (2019). “ESG Metrics: Reshaping Capitalism?” Harvard Business School Technical Note 116-037. <i>(copyright article hard copies in class)</i>. – Whelan, T., and C. Fink. (2016). The comprehensive business case for sustainability. Harvard Business Review 21:2012. <i>(copyright article hard copies in class)</i>. – Eccles, R. G., I. Ioannou, and G. Serafeim. 2014. The impact of corporate sustainability on organizational processes and performance. Management Science 60 (11):2835-2857. – Bonacchi, M., Perego, P., & Ravagli, R. (2012). The Evolution of Corporate Social Responsibility in Gucci: From Risk Management to Stakeholder Engagement. <p><i>Websites:</i></p> <ul style="list-style-type: none"> – Sustainable Development Goals: (SDG): https://sustainabledevelopment.un.org – SDG Compass https://sdgcompass.org/
Self-study Problems & Assignments	<p>Read Pirelli and Kering sustainability reports (I will distribute hard copies in class)</p> <p>Answer the Case Study questions on NYU Classes</p>
Session Plan	<p>A sustainable organization is a company that integrate social, environmental and governance issue into its strategy and process. We will discuss a framework that identify the main characteristics of “sustainable” organizations. In particular, we will look at: Strategy, Organizational Structure/Corporate Governance, measurement and reporting. We will learn that to create value for its shareholders (profit) and other stakeholder (sustainable performance) a sustainable organization needs to align these 4 pillars.</p>

We will introduce the two case studies (Kering and Pirelli) that will provide you with insights to:

- 1) assess the ESG performance of companies
- 2) understand under what condition and why sustainability pays
- 3) Building a business case for sustainability

Finally, we will also discuss the “big picture” of the course, course objectives (both yours and mine), and key dates in the course.

Session 3

How to get ESG data Guest Speaker: Justin Borges ESG Data Analyst at Bloomberg

September X

Topics

- What are the main ESG rating agencies?
- The divergence of environmental, social and governance (ESG) ratings.
- How to collect ESG raw data
- How to use Bloomberg database?

Readings

- Douglas, E., T. Van Holt, and T. Whelan. 2017. [Responsible investing: Guide to ESG data providers and relevant trends](#). *Journal of Environmental Investing* 8 (1):91-114.
- Kotsantonis, S., and G. Serafeim. 2019. [Four Things No One Will Tell You About ESG Data](#). *Journal of Applied Corporate Finance* 31 (2):50-58.
- RobecoSAM-Corporate-Sustainability-Assessment-Companion-2019 https://assessments.robecosam.com/documents/SAM_CSA_Companion_2019.pdf

Self-study Problems & Assignments

- Look how your 2 “Group Assignment” companies compare with at least other 5 competitors. In the comparison, use at least 2 rating systems.

Session Plan

ESG data are today what financial reporting was in the early 20th centuries: voluntary, not standardize, difficult to compare. In addition, there is not such a thing as a public repository such as EDGAR database for ESG data. The result is that companies produce many metrics but there is a relevance/reliability/comparability problem. For this reason, there is an increasing number of rating agencies, examples include ROBECOSAM (the underlying assessment for the Dow Jones Sustainability Index), MSCI ESG Ratings, Sustainalytics ESG ratings and CDP (formerly known as the Carbon Disclosure Project). These agencies assess the companies’ sustainability and aggregate the ESG metrics using proprietary scores. In order to benchmark companies on ESG performance it is crucial to have access to database that provide raw data on sustainability and ESG ratings. You will soon realize that in most of the cases there is a divergence of environmental, social, and governance (ESG) ratings (i.e. disagreement between the ESG ratings rating agencies). For this reason, it’s important for analysts to do their homework by reading and analyzing companies’ sustainability report.

PART 2: How to measure and disclose sustainability?

PART 2a: Why and How firms disclose ESG data to external Stakeholder

Session 4	<i>Disclosing Sustainability: an external perspective</i>	September X
Session 5		September X
Session 7		September X
Session 6	Guest Speaker: Filippo Bettini Chief Sustainability and Risk Governance Officer (Pirelli)	September X

Topics

- The evolution of financial reporting and the rise of narrative report and non-financial information.
- Why firms should disclose ESG data in the first place? Cost and Benefit.
- How to disclose ESG data: Shareholder perspective (SASB) vs Stakeholder perspective (GRI)
- The importance of Assurance

Readings

Mandatory:

- Serafeim, George, and Jody Grewal. (2019). “[ESG Metrics: Reshaping Capitalism?](#)” Harvard Business School Technical Note 116-037. (*copyright article hard copies distributed in class*).

Websites:

- Sustainability Reporting Guidelines (<https://www.globalreporting.org>)
- SASB standards: (<https://www.sasb.org/standards-overview/>)
- The International Integrated Reporting Framework (<http://integratedreporting.org>)
- AA1000 AccountAbility Principles: <https://www.accountability.org/standards/>
- CDP: (formerly the Carbon Disclosure Project) <https://www.cdp.net/en>
- TCFD: <https://www.fsb-tcf.org/publications/tcf-2019-status-report/>

Self-study Problems & Assignments

1. [Class Exercise 5.1 - ESG Framework and Standards](#) (available on NYU_Classes)
2. Look at Pirelli and/or Kering annual report and answer the following questions:
 - Identify the standard/s used by the organizations (e.g., GRI, SASB, IR, AA1000 , ...). Do they mention the standard? Do they adopt only one standard or multiple standards? Do they explain to what extent they rely on the standard/s?
 - Sustainability assurance. Are the reports assured? Do they include an assurance report? Who is the assurator? Is it an accounting company, a consultant, a certification body, a third party? What is the level of assurance (e.g., limited, high, moderate, ...)? Did the assurator revise the whole sustainability report or only some sections/measures? What is the conclusion/opinion of the assurator?
 - Are you able to assess whether the case study company increase or decrease the value created for the stakeholder? How would you construct a sustainability score using the ESG metrics disclosed in the sustainability report?

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- What is the Environmental Profit and loss of Kering? How does it work? Check it out <https://www.kering.com/en/sustainability/environmental-profit-loss/results/>
-

Traditional financial reporting is obsolete and not able to disclose the value created for stakeholders. The rise of sustainability and intangibles has intensified the importance of non-financial indicators among both management and stakeholders. For this reason, many large public companies around the world issue separate financial and sustainability reports. Unfortunately, sustainability reporting has not yet the same characteristics of traditional financial reporting. In particular, they lack reliability (sustainability report are frequently not audited and lack the rigorous measurement and reporting standards that exist for financial information) and comparability.

Finally, and most importantly, information contained in sustainability reports is rarely presented in the context of the business model and the strategy of an organization, making it difficult for investors to understand how ESG performance relates to financial performance and how sustainability issues affect the value creation process in an organization.

Session Plan Even when companies do improve on material social issues, they rarely report on the economic benefits that accrue. The idea that companies should focus ESG just for improving their reputations makes them eager to be seen as “doing the right thing,” but, sadly, reluctant to acknowledge that they profit from it. In many cases, companies actually conceal the economic benefit from investors, which reinforces investor ignorance about the importance of ESG strategy/innovation as a source of economic value.

While a number of organizations are working to overcome the over mentioned problems, of sustainability reporting, four are particularly important: the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the business model reporting (by the UK FRC), the International Integrated Reporting Council (IIRC), AA1000.

During the 3 sessions we will critically analyzed the main characteristics of the most popular standards and discuss future of ESG data disclosure.

How to measure and disclose sustainability?

PART 2b: A Performance Measurement System for Sustainability

Session 8	<i>Measuring Sustainability: an internal perspective</i>	September X
Session 9		October X
Session 10		October X

- Topics**
- How to evaluate business performance through its economic, environmental, and social dimensions
 - Analyze the trade-offs between the 3 dimensions and Stakeholders
 - Identifying a set of sustainability performance drivers that link the actions taken to the realization of strategic objectives

- Readings**
- Bonacchi, M., and L. Rinaldi. 2006. [A performance measurement system for sustainability](#). In Performance Measurement and Management Control: Improving Organizations and Society, edited by M. J. Epstein and J. F. Manzoni: Elsevier, 49-77.
 - Atz, U., Van Holt, T., Douglas, E., & Whelan, T. (2019). [The Return on Sustainability Investment \(Rosi\): Monetizing Financial Benefits of Sustainability Actions in Companies](#). Review of Business, 39(2).
 - Kering. 2019. [EP&L methodology paper](#)

- Self-study Problems & Assignments**
- Build the Sustainability Dartboard for the your two “Group Assignment” companies comparing the latest year available with the previous 2 years and target (if any).
 - Class Exercise 10.1 - “Early Decarbonization”
 - Class Exercise 10.2 - Dartboard and Clover in action

Traditional performance measurement systems based on shareholder value are inadequate for sustainability management. In fact, some of the most evolved companies agree that a multidimensional perspective is necessary to integrate stakeholder needs into a long-term value creation process, but textbook performance measurement systems do not allow for the integration of traditional measures with social and environmental indicators. In other words, we are faced with a paradox: in front of a growing request for sustainability, an increasing number of companies are currently communicating sustainability performances, but only very few of them are taking steps towards measuring and managing sustainability. For this reason, managers need a control system that supports the decision-making as follows:

- Session Plan**
- appreciate with an ex-ante logic the future sustainability of the strategy (ROSI);
 - verify currently that the actions are coherent with the strategy (Clover);
 - monitor ex-post the progress of the planned objectives (Dartboard);
 - integrate rewarding with sustainability targets.

Finding the right sustainability metrics is more art than science. This is the reason why some organizations also build their own tools, such as [Kering’s Environmental Profit and Loss](#), the [Crown Estate’s Total Contribution](#). Chief sustainability officer with the help of the CFO have a large role to play in finding the “right” KPIs, something that in the reporting for external users you do not need to invent because standards already exist.

PART 3: Do investor value sustainability?

Session 11	<i>Sustainability in Capital markets: Why and How investor use ESG Information?</i>	October X
Session 12	<i>Guest Speaker: Equity Strategist and Director UBS Asset Management</i>	October X
Session 13	<i>Guest Speaker: Andrea Pini: CFO North America at Gucci (Kering Group)</i>	October X

Topics

- Do investor care about sustainability?
- What are the main challenges for investors in using ESG data?
- Why and how capital markets benefit from ESG driven investing activity?

Readings

- Hayat, U., and M. Orsagh. 2015. [Environmental, Social, and Governance Issues in Investing: A Guide for Investment Professionals](#). *Codes, Standards, and Position Papers 2015*
- Kotsantonis, S. , Pinney, C. and Serafeim, G. (2016), [ESG Integration in Investment Management: Myths and Realities](#). *Journal of Applied Corporate Finance*, 28: 10-16. doi:[10.1111/jacf.12169](#)
- Amel-Zadeh, A., and G. Serafeim. 2018. [Why and How Investors Use ESG Information: Evidence from a Global Survey](#). *Financial Analysts Journal* 74 (3):87-103.

Websites:

- What are the Principles for Responsible Investment?
<https://www.unpri.org/pri/what-are-the-principles-for-responsible-investment>
- 2018 Global Sustainable Investment Review
<http://www.gsi-alliance.org/trends-report-2018/>
- High meadows institute (2019), [Sustainability in Capital Markets: A Survey of Current Progress and Practices](#)

Self-study Problems & Assignments
Session Plan

Fundamental analysis 2.0 integrate financial statement analysis and valuation tools with ESG data. Using your group assignment companies, complement traditional equity valuation with ESG consideration.

The investment industry is changing. Among other things, there is growing demand from both retail and institutional investors to align their capital with better environmental and social outcomes. As of 2018, the principle for responsible investment network had more than 2,000 signatories, with total assets under management of about \$80 trillion. Despite the growing interest in sustainability, ESG data are far from being meaningful and comparable among firms. In this 2 sessions will discuss why and how investors use ESG information and of the challenges in using this information. Finally, we will look at different capital market stakeholders, exploring how they adapt to the change and what the barriers are to further progress.