The Materiality of Sustainability Information under Capital Markets Law

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Aline Darbellay | Yannick Caballero Cuevas*

This paper explores the legal concept of the materiality of sustainability-related information under Swiss capital markets law. References to international standards, as well as EU and U.S. provisions, are also made with a view to highlighting the increasing importance of environmental, social and governance (ESG) aspects in the law and regulation of capital markets. We primarily focus on the categories of sustainability information that can be considered financially material, i.e. they have to be made available to investors so that they are able to make informed investment decisions. We assess the potential legal and regulatory consequences of the financial materiality of sustainability-related information under Swiss law. Emphasis is laid on the ad hoc disclosure regime, the prohibition of insider trading as well as the liability for disseminating false and misleading sustainability information.

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I. Introduction

This paper addresses the issue of the materiality of sustainability-related information from the perspective of capital markets law by addressing disclosure requirements applying to listed companies. The materiality assessment is a cornerstone of the law and regulation of the capital markets. It aims to assess what information investors need to make an informed investment decision. Materiality is an indeterminate legal concept that has to be interpreted on a case-by-case basis. Accordingly, there is a need to provide a legal analysis as to what extent sustainability-related information is considered financially material. Further, recent developments around sustainable capital markets have sought to reform the materiality test and move to the concept of double materiality according to which companies have to disclose both their financial exposure to sustainability risks and their impact on the environment and society.

The question arises as to whether there is a need to maintain a separate framework specifically related to sustainability issues or whether sustainability disclosures should be integrated into the existing financial law and regulation. This choice bears important legal consequences, resulting in two diverging approaches. On the one hand, if sustainability disclosures are subject to a specific framework different from traditional disclosure requirements, enforcement would differ from the framework applying to existing capital markets law and regulation. On the other hand, if sustainability disclosures are incorporated into the existing framework or if existing rules are reinterpreted so as to encompass a certain array of sustainability-related information, the existing capital markets law and regulation would take their full significance. Our focus is laid on the latter approach by highlighting the relevance of Swiss capital markets law in the realm of sustainability. Providing for an understanding of the evolving nature of the materiality concept is meant to open up new horizons for further research, thereby posing interesting and challenging questions.

This paper emphasizes the legal consequences attached to the dynamic interpretation of the financi-

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al materiality concept relating to sustainability concerns. In so doing, the overarching objective of this paper is to place sustainability-related information as an increasingly important topic of capital markets law and regulation. Light is shed on the legal bases applying to financial information under Swiss capital markets law while also incorporating relevant references to international standards, as well as EU and U.S. law. First, we discuss to what extent there is a duty to disclose sustainability-related information. Mandatory disclosure requirements give rise to an obligation to inform market participants. In such a case, the failure to disclose sustainability-related information would bear legal consequences. Second, we elaborate on the use of non-public sustainability-related information to assess to what extent the insider trading regime applies in the realm of sustainability. Third, we address selected aspects relating to the liability for false and misleading sustainability-related information. From the perspective of criminal law, false or incomplete statements of substantial significance about a commercial business may be subject to criminal actions pursuant to art. 152 of the Swiss Penal Code (SPC). This criminal provision is also of interest from the perspective of civil enforcement owing to its *Schutznorm* character, thereby paving the way for civil liability under art. 41 of the Swiss Code of Obligations (CO).

II. The Shifting Frontiers of Materiality in the Light of Sustainability Information

1. Financial Information and the Materiality Test

Mandatory disclosure requirements are the bedrock of capital markets law and regulation.[1] According to the traditional approach, there is a need to provide investors with information that is material for them to make informed investment decisions. The question arises as to what extent information is deemed to be financially material for investors. We are aware of the fact that each investor can have his or her own perspective on which information is material for his or her investment decisions, and the perspectives can differ from one investor to another. However, capital markets law tends to standardize the concept of materiality under the financial materiality concept.

First and foremost, defining information in capital markets is challenging due to its diffuse nature. Traditionally, facts, firm intentions, prospects, or external facts to companies are considered information.[2] Yet the concept of information has evolved over time. For instance, data is increasingly a source of information with the growing use of algorithms to process the massive amount of data from the Internet.[3] Information can be objective or subjective. Objective information is information that is verifiable.[4] By contrast, subjective information is hardly verifiable, because it refers to a value judgment or an opinion of an individual. Further, cases of mixed information combine both objective and subjective information.[5] Information can therefore take various forms and have different characteristics. In the realm of sustainability, we can distinguish objective sustainability-related information that is specific and measurable, such as carbon metrics or the use of natural resources that are facts, from sustainability disclosures that are less measurable and more general, such as forward-looking statements and commitments to re-

1 Please note that the rule-based approach of mandated disclosure is challenged by the behavioral sciences and the law & economics (L&E) literature. For a detailed discussion on the controversy surrounding mandated disclosure, see, e.g., *Rolf H. Weber,* From Disclosure to Transparency in Consumer Law, in: Klaus Mathis/Avishalom Tor (eds.), Consumer Law and Economics, Cham 2021, 74, 77 (criticizing the detail-oriented concept of mandated disclosure and favoring a shift to the more appropriate concept of transparency).

2 FINMA circular 2013/8 on Market Conduct Rules of 29 August 2013 (as amended on 4 November 2020), para. 8.

3 *Chris Skinner,* Digital Bank: Strategies to Lauch or Become a Digital Bank, Singapore 2017, 145 ff.; *Mazhar Javed Awan/Mohd Shafry Rahim/Haitham Nobanee/Ashna Munawar/Awais Yasin/Azlan Mohd Zain,* Social Media and Stock Market Prediction: A Big Data Approach, vol. 67, Computers, Materials & Continua 2/2021, 2569 ff., 2569 f.

4 *Denis Barrelet/Stéphane Werly,* Droit de la communication, 2nd edn., Bern 2011, 507.

5 *Ibid,* 507 (highlighting that there may be cases in which subjective information refers to objective information); *Marc Hanslin,* Markt- und Kursmanipulation: Art. 143 und Art. 155 FinfraG sowie Art. 122 ff. FinfraV, in: Peter Forstmoser (ed.), Schweizer Schriften zum Handels- und Wirtschaftsrecht, Zurich/St. Gallen 2017, 137 f.

duce environmental impacts.[6] This latter type of information could be categorized as subjective or at least mixed information. Thanks to data-driven analysis, what is initially understood as sustainability opinions may eventually evolve to be considered as facts.

Second, the materiality assessment is of an evolving nature.[7] This legal concept exists in most jurisdictions in one form or another and is subject to interpretation on a case-by-case basis. As the global standard-setter in the realm of securities regulation, the International Organization of Securities Commissions (IOSCO) has played a leading role in promoting disclosure requirements regarding material information as one of the core principles of the securities regulation.[8] However, the definition of materiality can diverge more or less from one jurisdiction to another, and new concepts of materiality can emerge and challenge the traditional interpretation of materiality.[9] Under U.S. law, the materiality of information refers to the substantial likelihood that a reasonable investor would attach importance to it in determining whether to buy or sell the securities registered.[10] Under Swiss capital markets law, materiality also refers to information that is able to influence the investment decision of a reasonable investor.[11] Materiality must be assessed *ex-ante* by considering all information available to the public, as well as the source of, the content of, and the context of information.[12] The concept of the reasonable investor is deemed to make the standard an objective one and is highly inspired by the notion of the informed investor owing to the efficient market hypothesis.[13] Investment decisions made by informed investors lead to the incorporation of all publicly available information into market prices.[14] Information is material if it alters the whole picture that a reasonable investor has of the total mix of the available information.

From a traditional perspective, the reasonable investor relies more on financial information and less on non-financial information.[15] For instance, the U.S. Securities Exchange Commission (SEC) has taken the view that the reasonable investor is a rational investor who cares primarily about the financial performance of his or her investments, thereby limiting the categories of information that meet the materiality threshold.[16] Nevertheless, sustainability-related in-

6 See, e.g., *Aisha I. Saad/Diane Strauss,* A new "Reasonable Investor" and Changing Frontiers of Materiality: Increasing Investor Reliance on ESG Disclosures and Implications for Securities Litigation, 17 Berkeley Business Law Journal 17/2020, 392 ff., 413–421.

7 See *Kern Alexander/Aline Darbellay,* Disclosure Regulation and Sustainability, in: Kern Alexander/Matteo Gargantini/Michele Siri (eds.), Handbook of EU Sustainable Finance, Regulation, Supervision and Governance, Cambridge (forthcoming 2023).

8 See IOSCO, Objectives and Principles of Securities Regulation, May 2017, 8 (stating that issuers should be required to provide "full, accurate and timely disclosure of financial results, risk and other information which is material to investors' decisions").

9 See, e.g., *David A. Katz/Laura A. McIntosh,* Corporate Governance Update: "Materiality" in America and Abroad, 1 May 2021 (available at <*https://corpgov.law.harvard.edu/2021/05/01/corporate-governance-update-materiality-in-america-and-abroad/*>).

10 See 17 CFR § 240.12b-2 (containing the definition of "material" in "Note to Paragraphs (1), (2) and (3)"); *Allan Horwich,* The Neglected Relationship of Materiality and Recklessness in Actions Under Rule 10b-5, vol. 55, The Business Lawyer 3/2000, 1023 ff., 1025.

11 For further developments, see section III.1 on *ad hoc* disclosures; see, e.g., Circular FINMA 2013/8 Market Conduct Rules (n. 2), para. 10, 17.

12 *Allan Horwich,* An Inquiry into Perception of Materiality as an Element of Scienter under SEC Rule 10b-5, vol. 67, The Business Lawyer 1/2011, 1 ff., 12.

13 *Daniel Lengauer,* Insiderhandel und Marktmanipulation, in: Daniel Lengauer/Mirjam Eggen/Rodolfo Straub (eds.), Fachhandbuch Kapitalmarktrecht: Expertenwissen für die Praxis, Zurich/Geneva/Basel 2021, 770.

14 *Vikash Ramiah/Xiaming Xu/Imad Am Moosa,* Neoclassical finance, behavioral finance and noise traders: A Review and Assessment of the Literature, vol. 41, International Review of Financial Analysis C/2015, 89 ff., 90; *Gina-Gail S. Fletcher,* Legitimate yet manipulative: The conundrum of open-market manipulation, vol. 68, Duke Law Journal 2018, 479 ff., 490.

15 *Saad/Strauss* (n. 6), 394; for more information about the Swiss requirements on annual reports, see *Reto Eberle/Daniel Bättig,* Rechnungslegung und Berichterstattung, in: Daniel Lengauer/Mirjam Eggen/Rodolfo Straub (eds.), Fachhandbuch Kapitalmarktrecht: Expertenwissen für die Praxis, Zurich/Geneva/Basel 2021, 401 f.

16 *Amanda M. Rose,* A Response to Calls for SEC-Mandated ESG Disclosure, vol. 98, Washington University Law Review 6/2021, 1821 ff., 1833; see further *Stefan J. Padfield,* Is Puffery Material to Investors? Maybe We Should Ask Them, vol. 10, U. Pa. Journal of Business and Employment Law 2/2008, 339 ff., 345 (stating that the SEC usually refers to an "average" investor when it comes to enforcing anti-fraud cases and that "conceptualizing the reasonable investor as sophisticated for materiality purposes may impose a duty upon shareholders to be rational, which would be contrary to the 'story' of corporate law that is based largely upon duty-free shareholder. […] the term 'reason-

formation is increasingly considered as financially material. Also, the concept of the reasonable investor may evolve as rational investors increasingly take into account sustainability-related information in their decision-making process.

2. The Increasing Convergence between Financial and Sustainable Materiality

2.1 Single Materiality Versus Double Materiality

The two main streams on the materiality of sustainability-related information are the concept of single materiality and the concept of double materiality. In the realm of sustainable capital markets, the IOSCO issued a report on sustainability-related issuer disclosure, thereby aiming at promoting sustainability-related disclosures.[17] The IOSCO presents both the single materiality and the double materiality approach and leaves the choice between the two approaches at the discretion of the national states.

First, the single materiality approach addresses sustainability-related information only to the extent that it is viewed as financially material.[18] According to the financial conception of materiality, sustainability-related information may be subject to disclosure requirements only if it has a financial impact on the enterprise value. Significant literature supports the view that materiality is a dynamic concept and that an increasing array of sustainability-related information is relevant for investors in their investment decision-making process.[19] The Task Force on Climate-related Financial Disclosures (TCFD) developed recommendations to respond to the growing demand for sustainability-related information by investors, lenders, and insurance underwriters in order to assess and price climate-related risks and opportunities.[20] By focusing on the financial impact of climate change on the financial sector, the TCFD mainly follows a single materiality approach. Its status reports and its annexes reflect the dynamic nature of the materiality concept by taking into account the steady increase in climate-related financial disclosures, moving for instance to consider that ESG metrics such as scopes 1 and 2 are *de facto* material, while scope 3 has to be subject to a materiality assessment.[21] In addition, with respect to corporate sustainability reporting, the International Sustainability Standards Board (ISSB) also follows a single materiality approach.[22] In this vein, the primary users of sustainability reporting standards, i.e., investors, lenders and other creditors, seek information about the significant sustainability-related risks and opportunities that are essential to assess the enterprise value of the reporting firm.[23]

Second, the concept of double materiality requires disclosure of both the exposure of the company to sustainability-related risks and the company's impact on the environment and society.[24] Thus, this concept distinguishes between the disclosure of sustainabili-

able investor' is meant simply to make the standard an objective one, excluding idiosyncratic investing decisions, rather than favoring a particular level of sophistication").

17 See IOSCO, Report on Sustainability-related Issuer Disclosures, Final Report, FR04/21, June 2021.

18 *Ibid,* 24 f.

19 See, e.g., *Ruth Jebe,* The Convergence of Financial and ESG Materiality: Taking Sustainability Mainstream, vol. 56, American Business Law Journal 3/2019, 645 ff., 645–648 (analyzing to what extent financial and ESG materiality are aligned); *Vishaal Baulkaran,* Stock Market Reaction to Green Bond Issuance, vol. 20, Journal of Asset Management 5/2019, 331 ff. (documenting how stock markets react to green bond issuance); see *David Freiberg/DG Park/George Serafeim/T. Robert Zochowski,* Corporate environmental impact: Measurement, data and information, Harvard Business School Working Paper 20-098/2020, revised February 2021 (finding that investors view environmental impacts as financially material).

20 TCFD, Final Report, Recommendations of the Task Force on Climate-related Financial Disclosures, June 2017, 1.

21 TCFD, 2021 Annex, Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, October 2021, 7; interestingly, the ISSB is moving forward and will require from the companies to disclose not only scopes 1 and 2, but also scope 3, see, e.g., ISSB, ISSB unanimously confirms Scope 3 GHG emissions disclosure requirements with strong application support, among key decisions, 21 October 2022 (available at: <*https://www.ifrs.org/news-and-events/news/2022/10/issb-unanimously-confirms-scope-3-ghg-emissions-disclosure-requirements-with-strong-application-support-among-key-decisions/*>).

22 Technical Readiness Working Group, Summary of the Technical Readiness Working Group's Programme of Work, 3 November 2021, 6.

23 IFRS, Exposure Draft of March 2022 on IFRS General Requirements for Disclosure of Sustainability-related Financial Information, 5; see, e.g., IFRS, Exposure Draft of September 2017 on Definition of Material, 7 (defining material as information "if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of a specific reporting entity's general purpose financial statements make on the basis of those financial statements").

24 See *Alexander/Darbellay* (n. 7).

ty-related information that is relevant for determining the enterprise value of corporations and the disclosure of sustainability-related information relevant to understand the external impacts of corporations on the environment or society.[25] Under this concept, sustainability-related information having a potential impact on the enterprise value should be considered material for investors, while information referring to external impacts of companies would be of interest to the stakeholders.[26] Making this distinction tends to result in requiring to disclose financial information in annual reports and non-financial information through the use of stand-alone sustainability reports.[27] Sustainability-related information is typically categorized as non-financial information.[28] What may be understood is that investors are the primary users of financial reports, while other stakeholders are the primary users of sustainability reports.

However, the demarcation line between financial and non-financial information is blurred. Sustainability-related information includes pieces of information that simultaneously have a financial impact on the company and society as a whole. Both financial and sustainable materiality can overlap in reporting.[29] Indeed, external impacts of the company on the environment or society can affect the enterprise value by influencing its financial performance or positions in the short-, medium- or long-term.[30] For instance, stranded assets – i.e., oil, gas and coal – pose clear risks to the financial performance of oil companies and should be reported as financially material for investors.[31] Another example could also result from reputational damages in the event of detrimental external impacts that lead to the withdrawal of major investors and dropping stock prices. In the case of convergence between financial and sustainable materiality, this would be crucial to include this type of information in the annual reports, which have the advantage of being audited by an independent third party. Companies should not content themselves with disclosing financially material sustainability-related information in sustainability reports by relying on the sustainability nature of the information. We argue that the double materiality concept does not refer to a clear distinction between financial and non-financial information.

The concept of double materiality has been mainly promoted by the European Union (EU), in particular with the Corporate Sustainability Reporting Directive (CSRD).[32] The CSRD replaces the Non-Financial Reporting Directive (NFRD), which was adopted in 2014 to require the disclosure of non-financial information.[33] The EU has used disclosure as a tool to promote sustainable corporate governance to take into account not only the interests of shareholders but also the interests of broader stakeholders.[34] Under the former NFRD, the EU depicted sustainability-related information as non-financial information, which contributed to the misconception relating to the clear divide between financial and non-financial information. However, the CSRD will mark a departure from this reductive approach. The CSRD requires the publication of sustainability-related information through the management report, which is integrated into the financial reports.[35] In order to guarantee the reliability of the reported information, the CSRD mandates independent auditing and certification of the reports.[36] In this vein, financial and sustainability reporting will be on equal footing. In addition, the European Financial Reporting Advisory Group (EFRAG) has drafted technical standards in order to

25 IOSCO (n. 17), 24 f; *Andreas Hösli/Rolf H. Weber,* Climate Change Reporting and Due Diligence: Frontiers of Corporate Climate Responsibility, ECFR 6/2021, 948–979, 968.

26 *Ibid,* 24 f.

27 *Jill E. Fisch,* Making Sustainability Disclosure Sustainable, vol. 107, The Georgetown Law Journal 2019, 923 ff., 927.

28 *Ibid,* 927.

29 See IOSCO (n. 17), 25–28.

30 *Ibid,* 25 f.

31 *Jebe* (n. 19), 651.

32 Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting, OJ L 322 (CSRD).

33 Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, OJ L 330 (NFRD).

34 *Pierre-Henry Conac,* Sustainable Corporate Governance in the EU: Reasonable Global Ambitions?, vol. 4, Revue Européenne du Droit 1/2022, 111 ff., 114; see, e.g., *Iris H-Y Chiu,* The EU Sustainable Finance Agenda: Developing Governance for Double Materiality in Sustainability Metrics, vol. 23, European Business Organization Law Review 2022, 87 ff.

35 Recital (79) CSRD; art. 19*a* CSRD.

36 Recital (79) CSRD.

standardize corporate sustainability reporting made in accordance with the CSRD.[37]

2.2 The Swiss Approach to Corporate Sustainability Reporting

In Switzerland, the SIX introduced the first step for sustainability-related information disclosures in 2017 with art. 9 of the Directive on Information relating to Corporate Governance (DCG).[38] The issuers listed on the SIX Swiss Exchange can notify to the SIX Exchange Regulation AG through the opting-in that they publish a sustainability report in accordance with an internationally recognized standard.[39] While the self-regulatory approach of the SIX Exchange Regulation AG was a first step, voluntary standards proved to be insufficient.[40]

Art. 964*a* to 964*c* CO introduced an obligation to disclose non-financial information.[41] These provisions apply to large companies of public interest and have, thus, quite a limited scope.[42] These amendments were based to a great extent on the EU NFRD of 2014, i.e., they reflect the conception according to which there is a demarcation line between financial and non-financial information. According to art. 964*a–c* CO, Swiss companies must disclose in a sustainability report any information about environmental matters, social issues, the respect for human rights and the fight against corruption.[43] Such disclosure must be done regardless of the financial materiality of sustainability-related information. As a result, the CO follows the double materiality approach.[44] Provided that the requirements of art. 964*b* CO are observed, the report can refer to national, European, or international regulations; otherwise, a supplementary report should be established.[45] Swiss companies may voluntarily go beyond the Swiss provisions with a view to complying with more stringent EU or international standards, owing most notably to the extraterritorial reach of the EU sustainable finance legislation.[46] In addition, the Federal Ordinance on Climate Disclosures is based on the framework for the disclosure of non-financial information governed by art. 964*b* CO.[47] The Federal Council favored a static reference to international standards, meaning that reference is made to a specific version and date.[48] Indeed, it makes a static reference to the 2017 TCFD recommendations and its 2021 Annex, which requires the disclosure of carbon metrics.[49] It is worthwhile noting that the TCFD views scopes 1 and 2 as financially material information and scope 3 as potentially material de-

37 See EFRAG, Draft European Sustainability Reporting Standards: Due Process Note, November 2022; see also EFRAG, Draft European Sustainability Reporting Standards: Explanatory Note of How Draft ESRS Take Account of the Initiative and Legislation Listed in Article 1 (8) of the CSRD Adding Article 29(b)-5 to the Accounting Directive, November 2022.

38 *Dusan Ivanovic/Yannick Wohlhauser,* Sustainable Finance in der Schweiz, GesKR 2/2022, 160 ff., 169.

39 *Ibid,* 169.

40 See *Mirjam Eggen,* Grüne Finanzprodukte, SZW 6/2021, 698 ff., 704.

41 Following the refusal of the corporate responsibility initiative in 2020, the Swiss Parliament adopted the indirect counterproposal containing art. 964*a–c* of the Swiss Code of Obligations (CO) that came into force on 1st January 2022; see, e.g., *Ivanovic/Wohlhauser* (n. 38), 168.

42 *Damiano Canapa/Evelyne Schmid/Elena Cima,* "Entreprises responsables": limitations et perspectives, vol. 41, ZSR 1/2021, 557 ff., 562.

43 Art. 964*b* para. 1 CO; Bundesamt für Justiz, Transparenz bezüglich nichtfinanzieller Belange und Sorgfaltspflichten und Transparenz bezüglich Mineralien und Metallen aus Konfliktgebieten und Kinderarbeit, 19. November 2019, 6, 8.

44 Financial Stability Board, Progress Report on Climate-Related Disclosures, 13 October 2022, 16; see, e.g., Federal Council, Federal Council sets parameters for binding climate reporting for large Swiss companies, 18 August 2021 (available at <*https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-84741.html*>).

45 Art. 964*b* para. 3 CO (providing "[i]f the report is based on national, European or international regulations, such as the principles laid down by the Organisation for Economic Cooperation and Development (OECD) in particular, the regulations applied must be mentioned in the report").

46 See *Aline Darbellay/Hristina Stoyanova,* Les standards internationaux en matière de finance durable: interactions entre démarches volontaires et exigences légales, in: Rita Trigo Trindade/Rashid Bahar/Giulia Neri-Castracane (eds.), Vers les sommets du droit, Liber amicorum pour Henry Peter, Zurich/Geneva/Basel 2019, 341.

47 See art. 1 of the Federal Ordinance on Climate Disclosures (OCD), as adopted by the Federal Council in November 2022 and entering into force on 1st January 2024.

48 For a definition of static and dynamic references, see *Alexandre Flückiger,* (Re)faire la loi, Bern 2019, 367; see art. 3 para. 1 OCD.

49 Art. 3 para. 1 OCD.

pending on a case-by-case analysis.[50] In this vein, framing climate-related disclosures as non-financial may already appear outdated.[51] The TCFD approach rather falls within the trend of moving toward the "financialisation of sustainability."[52]

In the light of the financial materiality of climate-related disclosures, the Swiss financial market authority (FINMA) seeks to be aligned with TCFD recommendations by imposing disclosure obligations on financial intermediaries. In May 2021, FINMA amended circular 2016/1 on prudential disclosure requirements for banks and circular 2016/2 regarding the basis for the financial situation report for insurance companies. These amendments provide a duty to disclose climate-related financial risks.[53] Furthermore, banks must disclose the criteria and methods used to assess the materiality of their climate-related financial risks.[54] According to FINMA, this information enables investors to understand how banks determine which climate-related risks it considers as material in order to monitor and control them.[55]

2.3 The U.S. Approach to Corporate Sustainability Disclosures

Under U.S. securities regulation, the SEC is expected to develop rules relating to sustainability disclosures. In March 2022, the SEC proposed rules to enhance and standardize climate-related disclosures for investors.[56] This proposal aims to require domestic or foreign registrants to include certain climate-related information in their registration statements and periodic reports.[57] If the new rules enter into force, companies would be required to disclose information such as their climate-related risks and their actual or likely material impacts on their business, strategy, and outlook.[58] They should also disclose their greenhouse gas emissions – i.e., scope 1 and 2, and if material, also scope 3 – as well as their governance of climate-related risks and relevant risk management processes.[59] Finally, certain climate-related financial statement metrics and their related disclosure should be presented in a note to the audited financial statements of companies.[60] The proposal is aligned with the TCFD recommendations and adopts a single materiality approach. However, critics have contended that the SEC has adopted an activist approach to climate policy that goes far beyond the SEC's authority, jurisdiction, and expertise.[61]

In fact, the statutes that created the SEC in the 1930s authorized the SEC to adopt disclosure requirements in the public interest or for the protection of investors.[62] The SEC may stick to the approach of financial materiality by reinterpreting the concept of materiality so as to require the mandatory disclosure of sustainability-related information so long as it is understood that it has a financial impact on issuers. If SEC rules are challenged into court, the new rules would probably be sustained only to the extent that there is no significant departure from the traditional concept of financial materiality.[63] However, shifting

50 TCFD (n. 21), 7.
51 *Hösli/Weber* (n. 25), 963.
52 *Ibid,* 968.
53 See, e.g., annex 5 of the FINMA circular 2016/1 on Prudential disclosure requirements that specifies what kind of information must be provided in the annual report by systemic banks that are not internationally active (D SIBs) and internationally active systemic banks (G SIBs).
54 *Ibid.*
55 FINMA Guidance 03/2022 on implementation of climate-related risk disclosures by category 1–2 institutions, 29 November 2022, 6 (highlighting that "none of the institutions disclosed the criteria and assessment methods used to evaluate the materiality of climate-related financial risks").
56 SEC, SEC Proposes Rules to Enhance and Standardize Climate-Related Disclosures for Investors, 21 March 2022; see, e.g., Proposed Rules for The Enhancement and Standardization of Climate-Related Disclosures for Investors [87 FR 21334].
57 SEC, Fact Sheet: Enhancement and Standardization of Climate-Related Disclosures, 1.
58 *Ibid,* 1.
59 *Ibid,* 1 f.
60 *Ibid,* 1.
61 For full critic of the SEC's new proposal of climate-related disclosure, see *Hester M. Pierce,* We are not the Securities and Environment Commission – At Least Not Yet, 21 March 2022 (available at: *<https://www.sec.gov/news/statement/peirce-climate-disclosure-20220321>*); *George S Georgiev,* The SEC's New Proposal on Climate Disclosure: Critiquing the Critics, 29 March 2022 (available at *<https://www.law.ox.ac.uk/business-law-blog/blog/2022/03/secs-new-proposal-climate-disclosure-critiquing-critics>*).
62 See, e.g., Section 7 of the Securities Act [15 U.S.C. 77g] and Sections 12, 13, and 15 of the Exchange Act [15 U.S.C. 78l, 78m, and 78o].
63 See *Rebecca Susko,* The First Amendment Implications of a Mandatory Environmental, Social, and Governance Disclosure Regime, vol. 48, Environmental Law Reporter 11/2018, 10989 ff.; 10992–10996, 11000.

to the concept of double materiality would most likely exceed the SEC's authority and would thus need to go through Congress, which may provide the SEC or any other authority with the regulatory powers to require the disclosure of non-financial information.[64] Therefore, this is becoming a political question which is currently subject to intensive debate.

2.4 The Need to Reshape the Concept of Materiality

The evolution of the legal and regulatory frameworks highlights the need to adopt a dynamic approach to the materiality concept. Accordingly, policymakers and regulators tend to require companies to disclose a broader array of information related to sustainability. While EU law has embraced the concept of double materiality, U.S. law has hitherto followed the single materiality approach. In comparison, Swiss law may currently seem to draw a clear demarcation line between financial and non-financial information, yet the path to TCFD-alignment rather leads to accounting for the financial nature of climate-related information. This demonstrates that the debate on how sustainability-related information should be addressed by capital markets law is still open. Investors' growing demand for more information about financial sustainability-related risks as well as the companies' impacts on the climate and biodiversity, the use of natural resources, or any social issues results from the fact that sustainability-related information enables them to better assess the physical, transition- and liability risks of companies.[65] Indeed, the sustainability-related risk may turn into an actual financial risk for the company.[66] The impact of companies on climate, biodiversity, or the society can affect their business models, cash flows, or earnings in the long run.[67] For instance, the effects of contamination on biodiversity from a mining company lead to financial uncertainties for the company, and must therefore be disclosed to the investors both in terms of financial risks and impact on biodiversity.[68] There is an increasing convergence between sustainability-related information and financial risks.[69] This pleads for acknowledging the dynamic nature of the concept of materiality. As the frontiers of materiality are shifting, this will eventually contribute to more accurate pricing and assessment of the enterprise value.[70]

III. The Possible Legal Consequences Arising Out of the Financial Materiality of Sustainability Information

1. The Duty to Disclose Sustainability Information

This section sheds light on the various legal bases for the duty to disclose information since they all reflect the materiality principle. First, we explore to what extent sustainability information may fall under the concept of "essential information" of the prospectus requirements and the financial reports *(Wesentlichkeit)*. Second, we discuss whether sustainability information may consist of price-sensitive facts whose disclosure is capable of triggering a "significant" change in market prices according to the *ad hoc* publicity regime *(Erheblichkeit)*. Overall, mandated disclosure seeks to ensure the proper flow of information in the capital markets, given the fact that the focus of our analysis is limited to listed companies. The various range of disclosure requirements depends on the timing of disclosure, which arises (i) at the time of issuance, (ii) on a periodical basis, and (iii) on an *ad hoc* basis.

64 See, e.g., West Virginia et al. *v.* Environmental Protection Agency (EPA) et al., No. 20-1530, 30 June 2022, in which the Supreme Court held that Section 111(d) of the Clean Air Act did not give the EPA the authority to regulate greenhouse gas emissions; see *Pierce* (n. 61); see also *Andrew N. Vollmer,* The SEC Lacks Legal Authority to Adopt Climate-Change Disclosure Rules, 12 April 2022 (available at: *<https://www.mercatus.org/publications/financial-regulation/sec-lacks-legal-authority-adopt-climate-change-disclosure-rules>)*.

65 *Eggen* (n. 40), 700 ff; *Saad/Strauss* (n. 6), 393; for more details about physical, transition- and liability risks, see TCFD (n. 20), 5 f.

66 *Eggen* (n. 40), 708.

67 *Ibid,* 708.

68 See, e.g., SEC, SEC Charges Compass Minerals for Misleading Investors about Its Operations at World's Largest Underground Salt Mine, 23 September 2022.

69 See, e.g., *Jebe* (n. 19), 685–690, 792.

70 See, e.g., *Saad/Strauss* (n. 6), 432 f.

1.1 The Duty to Disclose Essential Information in the Prospectuses and in the Financial Reports

Both the prospectus regime and the corporate reporting framework have their roots in company law. Nevertheless, the transfer of the prospectus provisions from the CO to the Financial Services Act (FinSA) has highlighted their capital markets law relevance, in particular owing to the requirement of regulatory approval prior to the publication of a prospectus.[71] At the time of the issuance of securities, disclosure regulation mainly consists of the prospectus requirement.[72] According to art. 40 para. 1 FinSA, the prospectus shall contain the essential information so that investors can make an informed investment decision. Interestingly, the test is made from the perspective of investors. We argue that the concept of essential information is an emanation of the materiality threshold. Nevertheless, the scope of sustainability-related information that is required *de lege lata* is relatively limited. Most notably, it already encompasses the main risks to which the issuer and its industry are exposed to.[73] This may increasingly include sustainability risks. In addition, it comprises information on pending or impending proceedings, where these are of material importance to the issuer's assets and liabilities or profits and losses.[74] This may encompass, for instance, environmental lawsuits provided that they have a financial impact on the issuer that is of material importance. However, the current legal basis does not leave much room for interpretation regarding sustainability-related disclosure. In the future, the prospectus requirement may eventually have to be amended to incorporate a further-reaching array of ESG information.

On a regular basis, corporate reporting is provided to a great extent in the financial reports pursuant to art. 957 ff. CO.[75] According to art. 958 para. 1 CO, financial reporting is intended to present the economic position of the undertaking in such a manner that third parties can make a reliable assessment of the same. The beneficiaries are the firm's stakeholders, including shareholders, employees, creditors, suppliers, clients, and the public.[76] There is nevertheless a limitation depending on the public availability of the financial reports.[77] Given the fact that listed companies are required to publish their financial reports, they are relevant not only from the company law perspective but also from the capital markets law perspective.[78]

According to art. 958*c* para. 1(4) CO, the financial reports must include essential information *(Wesentlichkeitsprinzip)*. Again, we argue that materiality is the underlying concept reflected by the notion of essential information. Reporting companies have a duty to assess the essential character of the information on a case-by-case basis in the proper exercise of their discretion *(pflichtgemässes Ermessen)*.[79] The test as to what information is essential depends on the beneficiaries of the financial reports.[80] In this regard, the growing demand for sustainability information by the users of financial reports should be taken into account by the reporting companies.

However, as noted, Switzerland has adopted a non-financial reporting (NFR) approach to corporate sustainability reporting, thereby tending to separate

71 Art. 51 para. 1 FinSA; as of November 2022, the prospectus review offices licenced by FINMA are the SIX Exchange Regulation AG and the BX Swiss AG.

72 See, e.g., *Nicolas Rouiller/Marc Bauen/Robert Bernet/Colette Lasserre Rouiller,* La société anonyme suisse, Zurich/Geneva/Basel 2022, 897 ff.

73 Annex 1, para. 2.1 of the Financial Services Ordinance (FinSO).

74 Annex 1, para. 2.4.6 FinSO.

75 See further *Jean Nicolas Druey/Eva Druey Just/Lukas Glanzmann,* Gesellschafts- und Handelsrecht, 12th edn., Zurich/Geneva/Basel 2021, 415 ff.

76 *Thomas Jutzi,* Unternehmenspublizität, Grundlinien einer rechtlichen Dogmatik zur Offenlegung von unternehmensbezogenen Informationen, Bern 2017, 165; *Arthur Meier-Hayoz/Peter Forstmoser/Rolf Sethe,* Schweizerisches Gesellschaftsrecht, 12th edn., Bern 2018, 220; *Hans Caspar von der Crone,* Aktienrecht, 2nd edn., Bern 2020, 59.

77 Please note that companies whose shares are not listed on any stock exchange and who have not issued any bonds are not required to publish their financial reports. Nevertheless, pursuant to art. 699*a* CO, financial reports have to be made available to shareholders, given the fact that they will be subject to their approval in the general meeting; moreover, pursuant to art. 958*e* para. 2 CO, creditors who have an interest worthy of protection have a right to consult the financial reports.

78 Art. 958*e* para. 1(2) CO; art. 49 para. 1 SIX Listing Rules.

79 *Meier-Hayoz/Forstmoser/Sethe* (n. 76), 235; Botschaft zur Änderung des Obligationenrechts (Aktienrecht und Rechnungslegungsrecht sowie Anpassungen im Recht der Kollektiv- und der Kommanditgesellschaft, im GmbH-Recht, Genossenschafts-, Handelsregister- sowie Firmenrecht), 21. Dezember 2007, BBl 2008 1509, 1701.

80 *Giorgio Behr/Peter Leibfried,* Rechnungslegung, 4th edn., Zurich 2014, 77; *von der Crone* (n. 76), 76.

financial information from non-financial information. In this vein, the annual reports are *de lege lata* not considered to be the most appropriate source of sustainability-related information. For instance, the disclosure of climate-related financial information will have to be integrated in the non-financial reports.[81]

Nevertheless, given the fact that there is a wide range of sustainability-related information that is material for investors, we argue that the annual reports should not be overlooked as a meaningful source of financially material ESG information. In particular, the disclosure of carbon emissions – scopes 1, 2 and 3 – should, in our opinion, be included in the annual reports. Among others, they have the advantage of being audited by an independent third party, thereby providing some assurance regarding the quality of the reported data (art. 727 ff. CO).

1.2 The Duty to Disclose Price-Sensitive Facts under the *Ad Hoc* Publicity Regime

Ad hoc publicity provides an interesting source of financial information to the capital markets. We argue that the existing regulatory framework allows for an application of the provisions as to encompass an increasing array of sustainability-related information. While legal amendments are under discussion with a view to transferring the *ad hoc* publicity regime in the Financial Market Infrastructure Act (FinMIA),[82] *ad hoc* publicity is currently governed by the self-regulatory framework of the SIX Swiss Exchange. Pursuant to art. 53 para. 1 of the SIX Listing Rules, companies listed on the SIX Swiss Exchange shall disclose price-sensitive facts that have arisen in their sphere of activity. As such, facts whose disclosure is capable of triggering a significant change in market prices amount to material non-public information. A price change is significant if it is substantially greater than the usual price fluctuations.[83] However, neither FINMA nor the SIX Listing Rules detail which price change should be considered as considerably greater than the usual price fluctuations. The Swiss Federal Court has already considered potential fluctuations of 5%–10% as relevant for the assessment of the price sensitivity of the information.[84] Nevertheless, even potential fluctuations of 2.5% and 3.5% can trigger the materiality threshold, in particular, for stocks included in the blue-chip Swiss Market Index (SMI).[85]

Accordingly, sustainability-related facts may increasingly give rise to *ad hoc* publicity. The interest of the *ad hoc* publicity regime lies in the fact that it consists of a materiality assessment that is done on a case-by-case basis according to art. 4 of the Directive on *Ad Hoc* Publicity (DAH) and does not depend on a limited list of price-sensitive facts. In the past, the SIX Exchange Regulation had established a practice according to which a list of *per se* price-sensitive facts had to be disclosed regardless of an assessment of their likelihood to trigger a significant change in the market price. The purpose was to create legal certainty, thereby reducing the issuers' discretion.[86] However, the revision of 2021 abolished the *per se* practice of the SIX Exchange Regulation, with the exception of annual and interim reports, which are always subject to an *ad hoc* announcement regardless of a fact-specific analysis.[87] In our opinion, these revised rules are well-advised as price sensitivity is an undetermined legal concept that has to be subject to a case-by-case analysis and may not depend on a limited list of facts. Except for annual and interim reports, issuers have a duty to make a materiality assessment in the proper exercise of their discretion *(pflichtgemässes Ermessen)* of the price sensitivity of facts arising in their sphere

81 Following the consultation procedure that ended in July 2022, the Federal Ordinance on climate reporting, which makes a static reference to the 2017 TCFD recommendations and its 2021 Annex, will enter into force on 1st January 2024.

82 See Eidgenössisches Finanzdepartement, Evaluation des Finanzmarktinfrastrukturgesetzes – FinfraG-Review, 30. September 2022, 25 ff.

83 Art. 53 para. 1 SIX Listing Rules.

84 BGE 145 IV 407 para. 3.4.1; SK.2018.26 of 9 August 2018 para. 3.4.3.2 (stating that depending on whether the stock is a blue-chip or a volatile stock, the required price fluctuation will be greater or lesser).

85 See further *Cédric Remund,* L'exploitation d'informations d'initiés selon les articles 154 et 142 LIMF, Une étude de droit suisse et comparé, in: Rolf H. Weber/Rolf Sethe/Susan Emmenegger (eds.), Schweizer Schriften zum Finanzmarktrecht, Zurich/Geneva/Basel 2021, 399 (presenting the generalized autoregressive conditional heteroskedasticity [GARCH] method); see Federal Criminal Court, SK.2020.36 of 22 June 2021 para. 2.4.13.4 ff; Court of Appeals for the Federal Criminal Court, CA.2021.19 of 12 July 2022.

86 *Anna Peter,* Die kursrelevante Tatsache, Ein Beitrag zur Ad-hoc-Publizitätspflicht im Kapitalmarktrecht, Schweizer Schriften zum Handels- und Wirtschaftsrecht, vol. 325, Zurich 2015, 246.

87 Art. 4 para. 2 DAH.

of activity. Companies shall classify the disclosure of price-sensitive facts as *ad hoc* announcements.[88] The test is an objective one that refers to the potential for the information to move market prices, thereby referring to the concept of the reasonable investor.[89] Accordingly, the question arises as to whether the reasonable investor would include the information with a high degree of probability in his or her investment decision.[90] The concept of the reasonable investor is discussed among regulators and scholars, and new concepts, i.e., the green investor, the average investor, or the market as a whole, tend to challenge the current concept of the reasonable investor.[91]

We argue that sustainability-related information may increasingly fall within the scope of the *ad hoc* publicity regime. This only applies to sustainability-related information that falls within the scope of price-sensitive facts. According to art. 35 FinMIA, the SIX Listing Rules take into account international standards. In the realm of capital markets regulation, international standards increasingly promote the disclosure of sustainability-related information by drawing upon investors' growing investors demand for such information, which is for instance the case for climate-related financial information, the SIX Listing Rules may easily be interpreted as requiring the *ad hoc* disclosure of price-sensitive sustainability information. At any rate, the SIX Exchange Regulation would not exceed its powers if it moves in this direction. According to art. 35 para. 2 let. b FinMIA, regulations shall contain provisions on the publication of information on which investors rely for assessing the characteristics of securities and the quality of the issuer. Empirical studies have found that investors rely on ESG information for making an investment decision.[92] For instance, in the EU, sustainability-related information has already been subject to *ad hoc* disclosure by issuers according to art. 17 of the Market Abuse Regulation (MAR).[93] The German financial market authority has explicitly mentioned substantial environmental disasters as potential examples.[94] In Switzerland, the SIX Exchange Regulation established a non-exhaustive catalog of price-sensitive facts, which is made available to issuers as a guide, yet it has hitherto not included any sustainability-related facts in the list.[95] Nevertheless, we argue that Swiss-listed companies should already assess the materiality of sustainability information to determine whether it is price-sensitive facts that should be subject to *ad hoc* disclosure. For instance, sustainability reports would have to be subject to a materiality assessment prior to publication. In particular, the disclosure of carbon metrics is relevant for investors in assessing the enterprise value.[96]

Legal consequences may arise in the event of a breach of the duty to disclose information. With respect to financial reporting and *ad hoc* publicity, the SIX Sanctions Commission may impose financial sanctions on issuers up to CHF 10 million in cases of wrongful intent and up to CHF 1 million in cases of

88 Art. 53 para. 2^{bis} SIX Listing Rules; see further *Remund* (n. 85), 372.

89 Art. 53 para. 1^{bis} SIX Listing Rules.

90 *Lengauer* (n. 13), 770 f.

91 For a general discussion the concept of the reasonable investor, see *Peter O. Mülbert/Alexander Sajnovits,* The Inside Information Regime of the MAR and the Rise of the ESG Era, European Company and Financial Law Review 18/2021, 256 ff., 278 ff.; for the theory of the reasonable investor as the market as the whole, see *Remund* (n. 85), 374, 376–378.

92 See, e.g., *Rajna Gibson Brandon/Philipp Krueger/Shema F. Mitali,* The Sustainability Footprint of Institutional Investors: ESG Driven Price Pressure and Performance, ECGI Working Paper Series in Finance 571/2018 (revised January 2021); see, e.g., *Vishaal Baulkaran,* Stock Market Reaction to Green Bond Issuance, vol. 20, Journal of Asset Management 2019, 331 ff.

93 RWE AG, Extreme Wetterbedingungen in Texas beeinträchtigen RWEs Stromerzeugung und belasten Ergebnis (EBITDA) 2021 geschätzt mit niedrigem bis mittlerem dreistelligen Mio. Euro Betrag, Ad-hoc notification under art. 17 MAR, 18 February 2021 (available at: <*https://www.rwe.com/investor-relations/finanzkalendar-und-veroeffentlichungen/news-und-ad-hoc-mitteilungen/ad-hoc-mitteilungen/ad-hoc-2021-02-18*>); S IMMO AG, S IMMO AG intends to issue a green bond, Ad hoc notification under art. 17 MAR, 13 January 2021 (available at: <*https://www.simmoag.at/en/investor-relations/ad-hoc-and-other-notifications/ad-hoc-meldungen/detail/notification/s-immo-ag-intends-to-issue-a-green-bond.html*>).

94 See BaFin, Modul C: Regelungen aufgrund der Marktmissbrauchsverordnung (MAR), 25 March 2020, 22.

95 See further *Daniel Dedeyan,* Regulierung der Unternehmenskommunikation, Aktien- und Kapitalmarktrecht auf kommunikationstheoretischer Grundlage, Zurich/Geneva/Basel 2015, 731 f.; see examples of price-sensitive facts on *ad hoc* publicity (available at: <*https://www.ser-ag.com/en/topics/ad-hoc-publicity.html*>).

96 See TCFD (n. 21), 7 (considering that the disclosure of scope 1 and 2 is *per se* financially material while the disclosure of scope 3 should be subject to a materiality assessment).

negligence.[97] These fines are of a civil nature (art. 35 para. 3 FinMIA).[98]

2. The Prohibition to Trade on the Basis of Non-Public Sustainability Information

Insider dealing laws seek to reduce the occurrence of insiders misusing non-public material information by taking advantage of such information to make a profit or avoid a loss before the information is disclosed to the public.[99] The insider trading regime applies to insiders who trade on the basis of non-public sustainability information that is deemed financially material. Pursuant to art. 2 let. j FinMIA, insider information relates to confidential information whose disclosure would significantly affect the prices of securities admitted to trading on a trading venue or DLT trading facility, which has its registered office in Switzerland.[100] As such, the materiality assessment is at the core of the definition of insider information. Information is material or has a signal effect when the content of and the type of information can influence the investment behavior of a reasonable investor who is familiar with the market.[101] This relates to information that is objectively considered relevant from a reasonable investor's perspective.[102] In so doing, the notion of inside information is aligned with the notion of price-sensitive facts in accordance with the *ad hoc* publicity regime.[103]

The prohibition of insider trading is subject to both administrative and criminal enforcement. In terms of the administrative provision, art. 142 para. 1 FinMIA prohibits any person who has insider information and who knows or should know that it is insider information or who has a recommendation that he or she knows or should know is based on insider information from (a) exploiting it to acquire or dispose of securities admitted to trading on a trading venue or DLT trading facility which has its registered office in Switzerland or to use derivatives of such securities, (b) disclosing it to another, or (c) exploiting it to recommend to another to acquire or dispose of securities admitted to trading on a trading venue or DLT trading facility which has its registered office in Switzerland or to use derivatives of such securities. With respect to the criminal provision, art. 154 FinMIA punishes the exploitation of insider information.

In the event that sustainability-related information falls within the definition of insider information, market participants who take advantage of it may be accused of committing insider dealing. It is worthwhile noting that empirical studies have found significant abnormal returns prior to the disclosure of a public announcement regarding green bond issuance.[104] This signals the presence of insiders in the ESG capital markets who trade on the basis of non-public information regarding the upcoming issuance of green bonds. As investors increasingly use ESG information in their decision-making process, the market reacts to the disclosure of sustainability-related information. Accordingly, possessing such information gives an unfair advantage to insiders who may use their privileged access to positive or negative sustainability information to make financial gains or avoid financial losses.

Moreover, as there is a growing demand from investors for sustainability-related information, the notion of the reasonable investor has to be interpreted in the sense that the reasonable investor will take into account an increasing array of sustainability information in the total mix of available information with a view to making an informed investment decision. Therefore, the definition of inside information depends on the materiality assessment in terms of what type of information has the potential to move market prices. Provided that the market significantly reacts to the disclosure of sustainability-related information, market participants trading on the basis of sustainability in-

97 Art. 61 para. 1 SIX Listing Rules; for examples of sanctions see, e.g., *Rodolfo Straub,* Ad hoc-Publizität, in: Daniel Lengauer/Mirjam Eggen/Rodolfo Straub (eds.), Fachhandbuch Kapitalmarktrecht: Expertenwissen für die Praxis, Zurich/Geneva/Basel 2021, 513 ff.

98 See further B-2233/2020 of 16 February 2021 (relating to the GAM Holding affair).

99 *Kern Alexander,* Principles of Regulation, Cambridge 2019, 268.

100 For the definition of confidential information in the digital age, see further *Cédric Remund/Dominic Wyss,* Insider Trading im digitalen Zeitalter: Neue Herausforderungen und Risiken, SZW 1/2023, 24 ff.

101 Circular FINMA 2013/8 Market Conduct Rules (n. 2), para. 10.

102 *Ibid,* para. 10; *Straub* (n. 97), 511 ff.

103 For an extensive analysis, see *Dedeyan* (n. 95), 823–826, 829–834.

104 *Baulkaran* (n. 92), 331 ff.

formation may well fall within the scope of the insider trading regime.[105]

3. The Liability for the Disclosure of False or Misleading Sustainability Information

3.1 Criminal Liability for False or Misleading Sustainability Information

The issue arises as to whether market participants may be held liable for the disclosure of false or misleading sustainability-related information. Even though Switzerland does not have any specific provision relating to greenwashing, we argue that the existing legal framework may already apply to a great extent. We analyze key legal provisions from the perspective of criminal and civil enforcement.

From the criminal law perspective, several possibilities can be explored, including art. 325^ter and 152 SPC or art. 155 FinMIA. With respect to non-financial information, art. 325^ter para. 1 let. a SPC punishes anyone who provides false information in the reports published in accordance with art. 964*a,* 964*b* and 964*l* CO. In the case of wrongdoing relating to non-financial reporting, criminal authorities may issue fines up to CHF 100 000 in case of intent and up to CHF 50 000 in case of negligence.

With respect to sustainability information that is financially material, we argue that art. 152 SPC may offer a more effective path in the event of greenwashing practices. This provision punishes any person who – while acting on behalf of a commercial enterprise – discloses false or incomplete information of substantial significance about commercial business in order to cause another person to dispose of his or her assets in such a way that he or she sustains a financial loss.[106] The sentence may go up to three years of jail time. Further, the scope is extensive as it covers any form of commercial enterprises regardless of their size. In so doing, this provision goes far beyond art. 325^ter SPC, which only applies to large companies of public interest.

Art. 152 SPC aims to safeguard the economic interests of various economic actors, in particular investors.[107] Interestingly, art. 152 SPC does not require effective damage since the fact of creating a risk of financial losses is sufficient.[108] The conduct can either be an active act or an omission, which can occur when a listed company fails to submit an *ad hoc* announcement.[109] Such omission is likely to give an incomplete understanding of the company's conditions, thereby falling within the scope of art. 152 SPC.[110] The information must be publicly disclosed or made available to a third party who will spread the information to the public.[111] The determining factor is the risk of spreading.[112] The information has to be of substantial significance, meaning that it can lead a reasonable economic actor to act in a manner that would adversely affect his or her pecuniary interests.[113] In our opinion, the concept of the reasonable economic actor is similar to the reasonable investor under capital markets law. Examples of information having substantial significance are, in particular, disclosures about profits or sales expected in the following quarter, product defects, or environmental damages that have occurred.[114] Accordingly, financially material sustainability information may have a substantial significance for a reasonable economic actor. For instance, companies that make public misrepresentations about engaging in significant green projects may attract investors and benefit from an inflated market price; when a greenwashing scandal erupts, their stock price may significantly drop, thereby causing investors to sustain a financial loss. Also, the omission

105 See *Mülbert/Sajnovits* (n. 91), 256 ff.

106 Art. 152 SPC; see *Ursula Cassani,* Droit pénal économique, Eléments de droit suisse et transnational, Basel 2019, 80 (stating that art. 152 SPC is a criminal norm that punishes a specific category of perpetrators who have a specific duty due to their position relating to the enterprise). Pursuant to art. 102 para. 1 SPC, the criminal liability of the enterprise is subsidiary; see, e.g., TF 4A_603/2020 para 8.

107 *Olivier Thormann/Cédric Remund,* art. 152 CP, in: Alain Macaluso/Laurent Moreillon/Nicolas Queloz (eds.), Commentaire Romand: Code pénal II, Basel 2017, 442.

108 *Ibid,* 457 f.

109 *Ibid,* 448 f., 450.

110 *Stephan Schlegel,* Art. 152, in: Wolfgang Wohlers/Gunhild Godenzi/Stephan Schlegel, Schweizerisches Strafgesetzbuch, 4^th edn., Bern 2020, 471; *Thormann/Remund* (n. 107), 456.

111 *Philippe Weissenberger,* Art. 152 StGB, in: Marcel Alexander Niggli/Hans Wiprächtiger (eds.), Basler Kommentar: Strafrecht, 4^th edn., Basel 2019, 3249; *Thormann/Remund* (n. 107), 453 f. (stating that information disclosed to a financial analyst or an asset manager should be qualified as public regardless of whether the information is actually disseminated or not).

112 *Thormann/Remund* (n. 107), 453 f.

113 *Ibid,* 456.

114 *Weissenberger* (n. 111), 3251.

to disclose substantial environmental damage may maintain stock prices at an artificially high level, thereby potentially causing financial damage to investors who make their investment decision based on false or misleading information. Accordingly, the increasing convergence between financial and sustainable materiality leads to the relevance of art. 152 SPC in the case of false or misleading sustainability information about businesses. In terms of the subjective state of mind, art. 152 SPC requires at least conditional intent *(Eventualvorsatz)*.[115]

In addition, art. 152 SPC is concurrent to art. 155 FinMIA, which prohibits price manipulation.[116] Unlike art. 152 SPC, price manipulation can be committed by anyone regardless of whether the person is related to the company.[117] Art. 155 FinMIA has a broader personal scope than art. 152 SPC. However, the requirements of price manipulation are more restrictive than art. 152 SPC.[118] In our opinion, art. 155 FinMIA would apply exceptionally in practice.

3.2 Civil Liability for False or Misleading Sustainability Information in a Comparative Approach

From the civil law perspective, we explore two provisions to assess what civil remedies may be available in the context of false or misleading sustainability-related information, i.e., the prospectus liability according to art. 69 FinSA and the general liability of art. 41 para. 1 CO.

With respect to the prospectus liability, art. 69 para. 1 FinSA aims to protect investors from any economic harm caused by information that is inaccurate, misleading, or not compliant with legal requirements.[119] This relates to information included in prospectuses, key information documents, or any similar communications.[120] Interestingly, the liability for forward-looking statements applies only if the false or misleading statement has been provided willfully or without mentioning the uncertainties of future developments.[121] This clarification is particularly relevant for certain types of sustainability-related information, given that there are some uncertainties concerning the consequences of the companies' impacts on climate, biodiversity or society. Nevertheless, a great deal of sustainability-related information is not required to be published in prospectuses, thereby falling outside the scope of this provision.

With respect to the general liability under art. 41 para. 1 CO, the elements to be proven by plaintiffs consist of a (i) wrongful act, (ii) damage, (iii) causation and (iv) fault.[122] In terms of the wrongful act, since the damage sustained by investors is of a purely economic nature, art. 41 para. 1 CO only applies in the event of the breach of a *Schutznorm,* i.e. a standard of conduct designed to protect the economic interests of individuals. It is worthwhile noting that capital markets law provisions typically do not qualify as protective norms since they do not seek to protect individual investors but rather the market as a whole. Nevertheless, the criminal provision of art. 152 SPC is considered to be a *Schutznorm* owing to the fact that it seeks to protect the pecuniary interests of individual investors.[123] It is worth mentioning that art. 325[ter] SPC is not a *Schutznorm* since this provision aims to ensure the application of the sustainability

115 See *Dedeyan* (n. 95), 647.

116 *Thormann/Remund* (n. 107), 460.

117 *Wolfgang Wohlers/Sonja Pflaum,* art. 155 FinfraG, in: Rolf Watter/Rashid Bahar (eds.), Basler Kommentar – Finanzmarktaufsichtsgesetz/Finanzmarkinfrastrukturgesetz, 3rd edn., Basel 2019, 2148.

118 Art. 155 para. 1 let. a FinMIA provides the following: "[a] custodial sentence not exceeding three years or a monetary penalty shall be imposed on any person who, with the intention of gaining a pecuniary advantage for themselves or for another, substantially influences the price of securities admitted to trading on a trading venue or DLT trading facility which has its registered office in Switzerland in that they: a. disseminate false or misleading information against their better knowledge".

119 Art. 69 para. 1 FinSA.

120 Art. 69 para. 1 FinSA.

121 Art. 69 para. 3 FinSA.

122 *Franz Werro/Vincent Perritaz,* art. 41 CO, in: Luc Thévenoz/Franz Werro (eds.), Commentaire Romand: Code des obligations I, 3rd edn., Basel 2021, para. 6, 20.

123 BGE 131 III 306 para. 3.2.2; *Peter Böckli,* Ad hoc-Publizität und Insiderstrafnorm: Nach- und Feinschliff für das Informationsrecht des Kapitalmarktes, in: Christoph B. Bühler (ed.), Informationspflichten des Unternehmens im Gesellschafts- und Börsenrecht, Bern 2003, 87 ff.; *Rolf Watter/Paula Reichenberg,* La responsabilité des sociétés cotées en bourse liée à leurs communications financières défaillantes, AJP 8/2005, 969 ff., 975; *Dedeyan* (n. 95), 943; *Daniel Daeniker,* Thesen zur Haftung für Ad-hoc-Publizität, GesKR 2–3/2006, 139 ff., 146; *Matthias Kuert,* Öffentlich-rechtliche Verhaltensnormen im schweizerischen Haftungsrecht: Unter besonderer Berücksichtigung des Finanzmarktrechts, Zurich 2018, para. 1210.

reporting requirements.[124] With respect to *ad hoc* publicity, although art. 53 of the SIX Listing Rules is not considered to be a protective norm given the fact that it does not seek to protect individual investors, false or misleading *ad hoc* announcements may be constitutive of criminal offenses pursuant to art. 152 SPC, which is a *Schutznorm.*[125] Not only untrue disclosures or *ad hoc* announcements but also omissions to disclose price-sensitive information fall within the scope of the liability provision.[126] Pursuant to art. 55 CO, enterprises may be held civilly liable for any wrongdoing caused by their employees acting in the performance of their duties, which would probably apply in the case of material misrepresentations of sustainability-related facts regarding enterprises.

Nevertheless, investors face significant hurdles in civil litigation, for instance relating to the proof of reliance on false or misleading information as well as the causal link between the wrongful act and the damage.[127] These elements have proven hard to prove in practice, especially owing to the fact that Swiss courts have not adhered to the "fraud-on-the-market" theory. With respect to the subjective state of mind, owing to the fact that art. 152 SPC requires conditional intent, an additional difficulty stems from the fact there is a need to consider whether civil liability would possibly arise only to the extent that the subjective element of the criminal *Schutznorm* is fulfilled or whether – given the application of art. 41 CO – mere negligence would be sufficient.[128] Conditional intent may be particularly difficult to prove in the case of sustainability-related misrepresentations. In addition, due to the absence of class actions under Swiss law, civil actions are not very efficient in the event of a large number of investors who sustained losses in relation to the same misrepresentation but who would may not be certified as a class.

In this regard, it is worthwhile making comparative references to the U.S. legal framework. As opposed to the "regulation first" approach to sustainability reporting prevailing in the EU, the U.S. has rather taken an "enforcement first" approach. Once an actor makes a public statement of a material fact, even one that was not required pursuant to law and regulation, it may be held liable for any false or misleading information that it disseminated in the capital markets.[129] This makes perfect sense, yet this may impair the flow of voluntary information disclosures in the realm of sustainability. In fact, the SEC Rule 10b-5 is the primary mechanism for enforcing antifraud goals.[130] Even in the absence of an obligation to disclose sustainability-related information, the SEC has already taken several enforcement actions in the event of greenwashing.[131] Moreover, defrauded investors are also awarded a powerful enforcement tool as they may enter into securities litigation through class actions.[132]

In this regard, materiality remains a crucial element of the legal analysis under U.S. securities regulation.[133] Also of key importance is the reliance element, which has been eased thanks to the case law adherence to the "fraud-on-the-market" theory, according to which the market price of shares traded on well-developed markets reflects all publicly available information and, hence, any material misrepresentations.[134] Accordingly, the legal and regulatory approach is significantly based on the efficient market hypothesis.[135] In the context of false or misleading di-

124 Bundesamt für Justiz (n. 43), 24.
125 *Peter* (n. 86), 42 f.
126 *Dedeyan* (n. 95), 945 f.; *Daeniker* (n. 123), 147 f.
127 See further *Célian Hirsch,* Et le prospectus causa un dommage : notre analyse critique d'une situation ambigüe, in: Franz Werro/Pascal Pichonnaz (eds.), La RC en arrêts et une nouveauté législative de taille, Bern 2022, 206–211.
128 For a detailed analysis, see *Dedeyan* (n. 95), 943–947.
129 *John Coffee/Hillary Sale/M. Todd Henderson,* Securities Regulation: Cases and Materials, 13th ed., St. Paul, MN, 2015, 921.
130 The SEC Rule 10b-5 is based on Section 10b of the Securities Exchange Act of 1934; *Coffee/Sale/Henderson* (n. 129), 1039.
131 See, e.g., SEC, SEC charges Brazilian Mining Company with Misleading Investors about Safety Prior to Deadly Dam Collapse, 28 April 2022; see, e.g., SEC (n. 68).
132 See, e.g., Ramirez v. Exxon Mobil Corp. (2018), where shareholders filed a securities fraud class action against Exxon for misrepresentations about climate change risk; See, e.g., SEC, SEC Announces Enforcement Results for FY22, 15 November 2022.
133 *Howell E. Jackson/Margaret E. Tahyar,* Fintech Law: The Case Studies, Cambridge, MA, 2020, 90 (explaining that investors must allege that that the company (a) made a material misstatement or omission, (b) it did with scienter, (c) its conduct was related to the purchase or sale of a security, (d) investors relied on the misstatement, and (e) they were harmed).
134 Basic Inc. v. Levinson, 485 U.S. 224, 108 S. Ct. 978 (1988) 246 and the references mentioned.
135 See *Eugene F. Fama,* Efficient Capital Markets: A Review of Theory and Empirical Work, vol. 25, The Journal of Fi-

sclosures, defendants may attempt to plead the puffery defense, which mainly applies to forward-looking statements expressing a certain degree of the company's optimism.[136] With the puffery defense, defendants question the materiality of their statements by arguing that they were obviously unimportant to a reasonable investor.[137] This may be relevant in the event of forward-looking statements relating to sustainability-related information. In any case, the materiality assessment would likely remain the core issue in U.S. securities litigation against companies making false or misleading statements regarding their sustainability. In sum, U.S. law may actually provide defrauded investors with more powerful and efficient tools than Swiss law in the event of greenwashing practices.

IV. Conclusion

In conclusion, the materiality test forms the centerpiece of the analysis under capital markets law and in the sustainability debate. The frontiers of materiality have shifted owing to investors' growing demand for sustainability-related information. Accordingly, international standards have reflected the dynamic nature of the notion of materiality. Even under Swiss capital markets law, the materiality test depends to a great extent on investors' demand for information. Interestingly, the concept of the materiality of information takes various forms depending on whether the duty to disclose comes from the CO, such as the reporting requirements, or when it comes from the capital markets law, such as *ad hoc* publicity or insider dealing. As a result, the materiality test under Swiss law is not fully consistent and systematic. While the legal provisions use different terms such as "essential" or "significant", we conclude that all these terms are emanations of the concept of materiality. With respect to the prospectus requirement and the financial reports, materiality is the underlying concept reflected in the notion of essential information, which has to be assessed from the perspective of the need for investors to have relevant information for their decision-making. With respect to both the *ad hoc* publicity regime and the insider trading regime, the notion of materiality is linked to the information likelihood of significantly moving market prices. Price-sensitive facts refer to pieces of information that reasonable investors consider when making their investment decisions. Accordingly, the growing demand for sustainability information from investors results in revisiting the potential categories of information that are deemed to be price sensitive. Given the requirement to make such an assessment on a case-by-case basis, the current legal and regulatory provisions are already suitable to increasingly incorporate the pieces of sustainability information that investors consider essential to make informed investment decisions.

nance 2/1970, 383 ff., 388 stating, among other things, "[…], we should note that what we have called *the* efficient markets model in the discussions of earlier sections is the hypothesis that security prices at any point in time 'fully reflect' all available information".

136 *David A. Hoffman,* The Best Puffery Article Ever, vol. 91, Iowa Law Review 5/2006, 1395 ff., 1407.

137 *Ibid,* 1406.