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When Should You Abstain? A Call for a Global Rule of Insider Trading

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WHEN SHOULD YOU ABSTAIN? A CALL FOR A GLOBAL RULE OF INSIDER TRADING

Ido Baum,[*] *Dov Solomon*[**]

ABSTRACT

The picture is so pervasive in the financial media—the CEOs of two major public corporations announcing the closure of a cross-border mega-merger—that one might be led to believe that securities regulations around the world, which govern the timing at which the information about the merger becomes material, are identical. However, this is an optical illusion that hides existing crucial differences in the determination of what constitutes material information. Although securities regulations tend to be generally harmonized, this Article sheds light on significant differences in the rules governing the definition of what is material information with regard to unfolding future events. Most notably, these rules determine the timing at which information about a potential future event becomes inside information and triggers insider trading prohibitions.

In the U.S., the probability/magnitude test has been developed to determine when a developing event becomes material information. In the E.U., a bright line test applies. The different tests imply that the same information can potentially be classified as material at different times depending on the applicable rule. Ultimately, the European regulation is more relaxed and consequently European insiders have the opportunity to trade in corporate securities based on their private information, thereby gaining an unfair advantage over uninformed market players. This Article shows that the interjurisdictional differences create a propensity for undesirable arbitrage and insider trading and undermine cross-border financial investments, as well as optimal corporate

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governance in transnational corporations. The Article also explains why a global test is much needed and why the U.S. probability/magnitude test should be adopted because it is the superior rule in terms of increasing investor confidence in the integrity of stock markets.

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I. INTRODUCTION

The news about one of the most audacious corporate frauds in history, the "Dieselgate" emissions scandal, broke in the fall of 2015.[1] To the world's surprise, Volkswagen, a German multinational automobile manufacturer, had deliberately falsified emissions tests by programming their turbocharged direct injection (TDI) diesel engines to activate their emission controls only when the vehicles were being tested for emissions. As a result, the nitrous oxide (NOx) output of the vehicles met U.S. standards when the vehicles were tested, but not when they were driven on the road, at which time the vehicles would emit up to 40 times more of these pollutants. The emission of NOx into the atmosphere may cause smog, respiratory disease, and even premature death.[2] After the U.S. Environmental Protection Agency (EPA) threatened to withhold approval

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1. For a detailed description of the "Dieselgate" emissions scandal, *see* Roger Parloff, *How VW Paid $25 Billion for 'Dieselgate' — and Got Off Easy*, FORTUNE (Feb. 6, 2018), http://fortune.com/2018/02/06/volkswagen-vw-emissions-scandal-penalties/.

2. Researchers have found that 38,000 people a year die prematurely because of the failure of diesel vehicles to meet lawful NOx limits in real driving conditions. *See* Susan C. Anenberg et al., *Impacts and mitigation of excess diesel-related NOx emissions in 11 major vehicle markets*, 545 NATURE 467 (2017).

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for the 2016 Volkswagen and Audi diesel models, the German carmaker finally admitted that it had illegally programmed the software to rig the emissions tests.

Dieselgate swept through Europe and the U.S. like a firestorm. Volkswagen stock plunged 45% in the days immediately after the scandal became public.[3] Shareholders have been seeking more than nine billion dollars in damages from Volkswagen over the sharp fall in the stock price that followed its admission of wrongdoing.[4] The Higher Regional Court of Braunschweig in Germany has been flooded with lawsuits against Volkswagen by institutional and individual investors.[5] Shareholders are also seeking to open collective action proceedings against Volkswagen in the Netherlands, using the "Dutch strategy," which allows for a global settlement of collective actions involving defendants and plaintiffs who are foreign to the Netherlands.[6] Moreover, after a sharp decline in the price of the Volkswagen-sponsored American Depository Receipts (ADRs)[7] following the news of Dieselgate, holders of ADR certificates, purchased on over-the-counter (OTC) platforms in the U.S., filed multiple class action lawsuits against the company in U.S. federal courts.[8]

Plaintiffs' main argument in the various actions is that Volkswagen failed to promptly notify shareholders about U.S. authorities' discovery of Volkswagen's manipulation of vehicle emissions tests. The plaintiffs argue that the company should have informed its investors about the possible financial damage caused by its manipulation before its *ad hoc* statement in September 2015. By delaying the disclosure of the potentially severe consequences to Volkswagen, the investors argue that the company violated securities laws. Volkswagen argues that its

3. Ben Chu, *Volkswagen diesel emissions scandal: The toxic legacy*, INDEPENDENT (Sept. 17, 2016), https://www.independent.co.uk/news/business/Leading_business_story/volkswagen-diesel-emissions-scandal-the-toxic-legacy-a7312056.html.

4. Nicola Clark, *Volkswagen Shareholders Seek $9.2 Billion Over Diesel Scandal*, N.Y. TIMES (Sept. 21, 2016), https://www.nytimes.com/2016/09/22/business/international/volkswagen-vw-investors-lawsuit-germany.html.

5. The lawsuits were filed in Germany because this is where Volkswagen stock has its primary listing. The Regional Court of Braunschweig has jurisdiction over Wolfsburg, the German city where Volkswagen headquarters are located.

6. *See* John C. Coffee, Jr., *The Globalization of Entrepreneurial Litigation: Law, Culture, and Incentives*, 165 U. PA. L. REV. 1895, 1908-11 (2017).

7. An ADR is a U.S. dollar-denominated form of equity ownership in a non-U.S. company. It represents the foreign shares of the company held on deposit by a custodian bank in the home country of the company, and it carries the corporate and economic rights of the foreign shares, subject to the terms specified in the ADR certificate. *See* Joseph Velli, *American Depositary Receipts: An Overview,* 17 FORDHAM INT'L L.J. S38, S39 (1994) (describing the different types of ADRs used by foreign issuers to enter U.S. capital markets).

8. Judge Charles R. Breyer of the Northern District of California held that the U.S. securities laws apply to OTC transactions in the U.S. of Level 1 ADRs sponsored by Volkswagen. *See In re* Volkswagen "Clean Diesel" Mktg., Sales Practices, and Prods. Liab. Litig., 2017 WL 66281 (N.D. Cal. Jan. 4, 2017).

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management indeed missed warning signs ahead of its diesel emissions scandal, but that did not break market rules by delaying the disclosure of its problems. Volkswagen argues it had no obligation to disclose the possible financial risks of its manipulation prior to September 22, 2015.[9] The flip side of Volkswagen's alleged delayed disclosure is that it created the potential for violations of the laws restricting the dissemination of inside information. Indeed, senior executives in Volkswagen allegedly shared the information about the possible financial risks associated with Dieselgate in private conversations with outsiders at least one day before the *ad hoc* disclosure—a violation of insider trading prohibitions. The German financial regulator, BaFin, has opened a criminal investigation into this matter.[10] Although this investigation is yet to be concluded, even if Volkswagen had legitimately delayed the disclosure of the information about Dieselgate to the public,[11] the information would have still been considered precise and material enough to be deemed inside information, which is subject to strict prohibitions regarding its dissemination.

Therefore, the main issue the international courts and regulators will have to address is the same legal question underlying this Article: at what point in time does information about an unfolding event, that is far from resolution, become material?

The answer to this question has a dual role in securities regulation. First, investors have great interest in information about events that are likely to happen in the future because it directly effects their investments. By the same token, this information is extremely valuable to corporate insiders. According to the Efficient Market Hypothesis (EMH), which is the prevalent hypothesis underlying securities regulation, stock prices fully reflect all available information.[12] The EMH claims that stock prices instantly change to reflect new public information.[13] Therefore, unless an investor trades on the basis of inside information, it is impossible to "beat the market" on a risk-adjusted basis and consistently produce excess

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9. Andreas Cremer, *VW tells court it did not break rules over 'dieselgate' disclosure*, REUTERS (Mar. 1, 2018), https://www.reuters.com/article/us-volkswagen-emissions/vw-tells-court-it-did-not-break-rules-over-dieselgate-disclosure-idUSKCN1GD60O.

10. BaFin confirmed in 2017 that it was investigating its suspicion that a top executive at Volkswagen shared information about the magnitude of the scandal with a small circle of select outsiders before duly disclosing the information to the public. Andreas Cremer & Jan Schwartz, *German Regulator Launches Another Probe into VW Over Scandal*, REUTERS, (Nov. 10, 2017), https://www.reuters.com/article/us-volkswagen-emissions-probe/german-regulator-launches-another-probe-into-vw-over-scandal-idUSKBN1DA2GZ.

11. For the conditions under the European law allowing issuers to delay disclosure of material information, *see infra* notes 52-55 and accompanying text.

12. Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383 (1970).

13. *Id.* at 404-409.

returns because market prices constantly reflect the "fair value" of the corporation and should react only to new public information. But because the market does not react to unknown events, an investor's superior ability to predict how uncertain processes are likely to unfold presents an opportunity to extract an above-average return in the stock market. Even better, an investor's knowledge of an undisclosed event presents a golden opportunity for a huge profit where the markets are not yet aware of the disclosure. As was arguably the case in Dieselgate, corporate insiders that are privy to private information and outsiders that come into possession of inside information may use this information to trade in corporate securities, thereby gaining an unfair advantage over uninformed market participants.[14]

Both U.S. and European jurisdictions have legal regimes that prohibit insider trading, on the one hand, and govern the disclosure of information about unfolding events that have not yet fully materialized, on the other hand. As disussed in this article, these regimes differ from each other. Although the differences in defining what constitutes material information may not seem dramatic at first glance, the divergence is significant, particularly with regard to insider trading. The difference has several detrimental implications. First, it undermines the global effort to harmonize capital markets and securities regulation. Second, it has the potential to undermine U.S. investors' trust in cross-border investments. Third, it creates hidden incentives for managerial opportunism.

While corporate law and corporate governance are characterized by interjurisdictional competition,[15] securities regulation tends to be more harmonized across countries.[16] However, there are some aspects of

14. Goshen and Parchomovsky explain that the mechanism that drives financial markets is informational trade by corporate outsiders. Zohar Goshen & Gideon Parchomovsky, *The Essential Role of Securities Regulation*, 55 DUKE L. J. 711 (2006). When corporate insiders trade on the basis of nonpublic information, outsiders are driven out of the market. *See* Lars Klöhn, *Inside information without an incentive to trade? What's at stake in '*Lafonta v. AMF', 10 CAPITAL MKTS. L. J. 162 (2015).

15. *See, e.g.*, Roberta Romano, *Law as a Product: Some Pieces of the Incorporation Puzzle*, 1 J.L. ECON. & ORG. 225 (1985); Marcel Kahan, *The Demand for Corporate Law: Statutory Flexibility, Judicial Quality, or Takeover Protection?*, 22 J.L. ECON. & ORG. 340 (2006); Ofer Eldar & Lorenzo Magnolfi, *Regulatory Competition and the Market for Corporate Law* (Yale L. & Econ. Research Paper No. 528, 2017), https://ssrn.com/abstract=2685969.

16. *See, e.g.*, Amir N. Licht, *International Diversity in Securities Regulation: Roadblocks on the Way to Convergence*, 20 CARDOZO L. REV. 227, 227 (1998) ("[T]he dominant trend in securities regulation is harmonization and convergence of domestic national regimes…"). The effort to harmonize disclosure rules and reporting standards has been particularly evident in securities regulation and financial accounting. *See generally* Karel Van Hulle, *International Convergence of Accounting Standards: A Comment on Jeffrey*, 12 DUKE J. COMP. INT'L. L. 357 (2002); Roberta S. Karmel, *The E.U. Challenge to the SEC*, 31 FORDHAM INT'L L.J. 1692 (2008) (discussing the efforts to bring U.S. and international accounting standards into convergence). *See also* Eric C. Chaffee, *The Internationalization of Securities Regulation: The United States Government's Role in Regulating the Global Capital Markets*, 5 J. BUS. & TECH. L. 187, 192 (2010) (arguing that "[T]he United States government should push for the harmonization and centralization of international securities regulation to end the race-to-the-bottom in

securities regulation that do exhibit a certain level of regulatory competition or regulatory divergence. For example, jurisdictions may differ regarding the thresholds at which disclosure obligations are triggered,[17] the period of time corporations have until periodic reports have to be filed,[18] or the complexity and extent of details that must be disclosed in the reports.[19]

Nevertheless, the core concepts of securities regulation tend to be similar across jurisdictions. For example, both U.S. and European jurisdictions conform to the maxim that information regarding "material" events is important to investors and that when material information remains nonpublic, insider trading prohibitions apply. Hence, "materiality" is a common principle of securities regulation. Materiality is important to both disclosure obligations and insider trading prohibitions. If information is material, it is often subject to disclosure obligations. When material information is not disclosed, insiders holding this information while trading in the stock market have an unfair

international securities law and to avoid another financial crisis"); Marco Ventoruzzo, *Comparing Insider Trading in the United States and in the European Union: History and Recent Developments* 3 (European Corp. Governance Inst., Working Paper No. 257/2014, 2014), http://ssrn.com/abstract=2442049 (arguing that "notwithstanding the different theoretical underpinnings of insider trading in the U.S. and in Europe, the practical scope of the two systems are largely similar, especially in the most egregious cases, even if important differences exist.").

17. *See, e.g.*, Michael C. Schouten & Mathias M. Siems, *The Evolution of Ownership Disclosure Rules Across Countries*, 10 J. CORP. L. STUD. 451 (2010).

18. For instance, the U.S. Securities and Exchange Commission (SEC) requires public corporations to file annual reports (known as Forms 10-K) within 60 to 90 days from the end of the fiscal year, depending on, *inter alia*, the value of floated shares. *See* Fast Answers Form 10-K, https://www.sec.gov/fast-answers/answers-form10khtm.html. The deadline in the UK, after implementation of the European Directive, is more relaxed. A UK public company listed on the London Stock Exchange must disclose its annual report, including the audited annual financial statement, within four months of the end of the fiscal year. *See* Rule 4.1.3 of the Disclosure and Transparency Rules of the UK Financial Conduct Authority (FCA), FCA Handbook, https://www.handbook.fca.org.uk/handbook/DTR/4/1.html.

19. A recent example is the requirement to disclose the so-called "Pay Ratio." Section 953(b) of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 directed the SEC to amend Item 402 of Regulation S-K to require issuers to disclose the ratio between the annual compensation of the CEO and the median of the annual total compensation of all employees of an issuer, except the CEO. The SEC implemented the complex disclosure rule in 2015, in its Pay Ratio Disclosure, Release No. 33-9877, Pay Ratio Disclosure, 80 Fed. Reg. 50104, 50105 (Aug. 5, 2015). The SEC requires that all employees, including those employed outside the U.S., be included in the calculation of the workforce for the purpose of locating the median employee, unless foreign employees represent 5% or less of employees. By comparison, there is no mandatory pay ratio disclosure in Europe. The first European country to consider adopting pay ratio disclosure is the UK. In mid-2018, the UK government decided to consider requiring large listed UK public corporations to disclose pay ratios, as part of a corporate governance enhancement reform. A draft legislation on the subject was published for public discussion. *See* The Companies (Miscellaneous Reporting) Regulations 2018 No. 860 (11 June 2018). The UK proposal is richer than that of the SEC in that it suggests disclosing the ratio of the CEO's pay to the median (50th), 25th, and 75th percentile fulltime equivalent remuneration of employees. The U.K. draft proposal, however, limits the ratio to UK employees only.

advantage over other investors. If, however, information is not material, it can actually harm the investors to require disclosure.[20]

Determining whether information is material or not is one of the most common tasks of corporate officers and securities lawyers.[21] The determination can be based on precise numerical thresholds, such as: the effect of a certain transaction on the annual revenue of the corporation, the value of its asset portfolio, its obligations, etc. Some information, however, is "softer" but still material. This type of information may include regulatory changes that may influence the future value of the corporation, sea changes in market competitiveness, an illness of the founder of the corporation,[22] unplanned stepping down of the CEO, potential exposure to lawsuits due to wrongdoing.

Many material events in the daily life of a corporation are sudden or unexpected. Securities regulation regimes often require corporations to make current disclosures about such events. Otherwise, insiders are required to abstain from trading in the corporation's securities while the information is nonpublic. This is often described as the *disclose-or-abstain-rule*.[23] Determining materiality becomes complicated when the underlying events have not yet occurred but are in the process of materializing.[24] Even if material information about a future event is not made public, determining its materiality is important. When corporate

20. Disclosure of immaterial information is potentially problematic because it may help corporations conceal important negative information by overloading investors with immaterial information. Investors may be overwhelmed by "noise," the multitude of disclosures of immaterial events, and overlook or underestimate the relatively few material events being disclosed. Therefore, too much disclosure might be bad in and of itself. For a general critique of the overuse and overreliance on mandated disclosure, *see* Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647 (2011).

21. Soderquist and Gabaldon explain that "[t]he process of determining materiality takes the most skill and judgment." *See* LARRY D. SODERQUIST & THERESA A. GABALDON, SECURITIES LAW 75 (5th ed. 2014). Choi and Pritchard add that "determining whether a particular morsel of information is material is often an uncertain process." *See* STEPHEN J. CHOI & A.C. PRITCHARD, SECURITIES REGULATION: CASES AND ANALYSIS 48 (4th ed. 2015). For a comparative analysis of materiality tests in the U.S. and the E.U., arguing that Bayesian inference is common to both regimes in determining whether a particular additional undisclosed fact is important to investors, *see* Kurt S. Schulzke & Gerlinde Berger-Walliser, *Toward a Unified Theory of Materiality in Securities Law*, 56 COLUM. J. TRANSNAT'L L. 6, 32 (2017).

22. This is a particularly sensitive example because of the privacy aspects involved in such disclosures. Additionally, the point in time at which an executive's medical condition requires disclosure is not only the executive's decision but likely that of the board. *See* Tom C. W. Lin, *Undressing The CEO: Disclosing Private, Material Matters of Public Company Executives*, 11 U. PA. J. BUS. L. 383, 413 (2009) ("[O]nce the board determines that such information is material and should be made available to the public, it should be timely disclosed within the existing disclosure framework."). For an example, *see* the disclosure by Google (now Alphabet) co-founder Sergey Brin about his potential Parkinson's disease risk. Miguel Helft, *Google Co-founder Has Genetic Code Linked to Parkinson's*, N.Y. TIMES (Sept. 18, 2008), http:// www.nytimes.com/2008/09/19/technology/19google.html.

23. *See, e.g.,* Chiarella v. United States, 445 U.S. 222, 227 (1980).

24. This Article focuses on current disclosures, but the issue discussed here also applies to periodic disclosures that need to be made when events are still in the process of materializing.

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insiders possess material nonpublic information, they have an unfair advantage over other market players, and therefore are prohibited from trading in corporate securities in such circumstances.[25]

The U.S. and Europe have different methods of determining the materiality of information regarding future events. The two regimes differ on the essential determination of materiality. In other words, even if the more technical nuts and bolts of securities regulation are harmonized about how to handle material information, the two regimes may still be expected to yield different outcomes because what is deemed material information will be different in the jurisdictions. The interjurisdictional difference in determining materiality is far from merely a theoretical exercise. It has implications for transnational corporations that may seize regulatory arbitrage opportunities to avoid burdensome disclosure regimes and the associated liability. The difference has implications also in cases of cross-border mergers and acquisitions of listed corporations. Because of these significant implications, it is important to discuss the potential for arbitrage that the disparity in the threshold of materiality creates—especially in the enforcement of insider trading prohibitions.

The interjurisdictional difference undermines cross-border financial investments as well as optimal corporate governance in transnational corporations. Therefore, after analyzing the different approaches of the U.S. and E.U. to uncertain events, and the significant implications of the difference, this Article proposes the adoption of a global test for determining the materiality of future events. The proposal is based on the advantages of harmonization in securities regulation across the globe and on the superiority of the U.S. probability/magnitude test which aims at increasing investor confidence in the integrity of stock markets and corporations.

This Article proceeds as follows: Part II describes the divergent legal development of the U.S. and E.U. tests for determining the materiality of information regarding future events, followed by a comparison of the tests. Part III discusses the significant implications of the different materiality tests. Part IV proposes a global rule for determining the materiality of future events, discusses the benefits of harmonization in securities regulation, and argues for the superiority of the U.S. over the E.U. test. Part V then concludes the discussion.

25. The U.S. SEC strictly applies this prohibition. However, because stock- or option-based remuneration is pervasive in public corporations, a so-called "Rule 10b5-1 safe harbor plan" has emerged. These are passive investment schemes in which insiders holding shares or options relinquish direct control over their transactions when they possess material non-public information. These plans provide an affirmative defense against insider trading on the condition, *inter alia*, that they are entered into and implemented in good faith. In short, the insider is relinquishing control over his or her shares to a third party and therefore has an affirmative defense to insider trading allegations.

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II. THE DIFFERENT APPROACHES TO UNCERTAIN EVENTS

This Part outlines the development of the two major tests for determining a company's disclosure obligations for unfolding events. The threshold question is whether the unfolding event is material. Different jurisdictions attack this question in different ways. This Part starts with the U.S. test, not only because it is by far the most developed, but also because it emerged from a detailed deliberation of various possible tests. This test is called the probability/magnitude test. The European test, in contrast, reflects the outcome of a political strong-arming process between E.U. member states. The difference in the process through which these regimes emerged does not mean that the U.S. approach is necessarily more rigorous than the E.U. approach. In fact, the European approach is probably more demanding in many respects. This Part strives to emphasize the difference between the materiality tests and why the difference is so critical.

A. The U.S. Probability/Magnitude Test

In 1968, the Second Circuit introduced the probability/magnitude test for the first time in *SEC v. Texas Gulf Sulphur* (hereinafter "*TGS*").[26] In *TGS*, Employees of *TGS* were privy to information about preliminary findings of minerals in the company's mining explorations in Canada. The findings were indicative of a potentially large mineral deposit. The information was not made public, and employees started buying and later trading *TGS* stock based on the hope that these findings would create large profits for the company. The court had to determine whether the information in the possession of the defendants should be deemed material, despite the uncertainty in the initial stages of the mining exploration. The court developed and formulated the probability/magnitude test: "[w]hether facts are material . . . will depend at any given time upon a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity."[27]

A few years later, the Third Circuit adopted another test regarding the disclosure of negotiations in anticipation of a transaction.[28] Under this test, established in *Greenfield v. Heublein*, information about an anticipated transaction becomes material only when an agreement-in-principle is reached, generally in the form of an initial agreement on the

26. SEC v. Texas Gulf Sulphur, 401 F.2d 833 (2d Cir. 1968).

27. *Id.* at 849.

28. Greenfield v. Heublein, 742 F.2d 751, 756-57 (3d Cir. 1984).

structure of the deal and the price.[29] The agreement-in-principle test is a bright-line rule. Although this test applies to disclosure of negotiations leading to a transaction such as a merger or an acquisition, it is equally applicable to any material transaction of the corporation. A bright-line rule is simpler for a court to apply compared to the probability/magnitude text because it focuses on a particular set of facts or circumstances that can be factually verified, such as an agreement on particular elements of a contract.

However, in 1988, the Supreme Court rejected the Third Circuit's bright-line rule in *Basic Inc. v. Levinson*.[30] *Basic* concerned a class action brought by investors who sold their shares before an announced merger of the corporation. The investors argued that they had been misled by the corporation, which in response to questions from different entities, including the New York Stock Exchange, denied at least three times that merger negotiations were in progress. The denial turned out to be false.[31] Twenty years after the Second Circuit first used the probability/magnitude test in *TGS*, the Supreme Court directed courts to use the probability/magnitude test in determining the materiality of information about business transactions.[32] *Basic* is a particularly important ruling in this respect because of the in-depth discussion by the Supreme Court of the two competing tests and the explicit preference stated for the probability/magnitude test.

According to U.S. securities regulation, as opposed to the rule in the E.U., there is no obligation mandating public corporations to disclose merger negotiations.[33] But if a corporation is asked to respond to a

29. *Id.*

30. Basic, Inc. v. Levinson, 485 U.S. 224 (1988).

31. *Id.* at 233 n.4.

32. *Id.* at 234–236. The Delaware court also adopted the probability/magnitude test in *Alessi v. Beracha*, 849 A.2d 939, 944–950 (Del. Ch. 2004), overturning an earlier ruling in *Bershad v. Curtiss-Wright Corp.*, 535 A.2d 840 (Del. 1987) that favored the bright-line rule.

33. The disclosure of events that are not governed by mandatory disclosure obligations in the U.S. is governed by SEC Rule 10b-5, C.F.R. § 240.10b-5 (2017). *See* Matrixx Initiatives, Inc. v. Siracusano, 563 U.S. 27, 44 (2011) (holding that Rule 10b–5(b) does "not create an affirmative duty to disclose any and all material information."). A listed company on a stock exchange has some obligations to make prompt public disclosure of material information. It appears, however, that a breach of this obligation with regard to information that has not been made public earlier and is not subject to a specific disclosure obligation cannot be the basis of a cause of action by the SEC or by an investor seeking damages. *See* Allan Horwich, *The Legality of Opportunistically Timing Public Company Disclosures in the Context of Rule 10b5-1*, 71 BUS. L. 1113, 1128-29 (2016). A mandatory disclosure regarding future events applies, for example, in the case of first-time issuers. These issuers are obligated to disclose future business acquisitions according to SEC S-X Rule 3-05, which requires issuers to include in their financial statements "probable" acquisitions, if they are material. In this case, materiality is measured by any one of three magnitude tests: the issuer's investment, the issuer's total asset change, or the issuer's change in pre-tax income. The SEC's guideline indicates that probability should be assessed by a consideration of all available facts. *See* SEC Financial Reporting Manual s. 2005.4. Once information about a future event has been made public, there is an obligation to update it with fact-based forward-looking information.

question regarding such negotiations or other unfolding material events, it can confirm or deny the information or it can respond with "no comment."[34] In any case, the corporation must respond truthfully.[35]

In *Basic,* the Court addressed whether information regarding negotiations pertaining to an uncertain merger constitutes material information. If the answer is yes, denying the existence of negotiations means that the investors were given incorrect information about material facts, providing a basis for a class action. If, however, the answer is no and the information is immaterial, no harm has occurred and therefore a class action cannot be sustained.

Justice Blackmun, writing for the Court, discussed and rejected three main arguments that supported the agreement-in-principle test to determine the materiality of information concerning uncertain future events.[36] The first argument rejected stated that investors will be overwhelmed and misled by uncertain information. This argument focuses on the welfare of investors. The court rejected it as paternalistic and contravening the broad policy generally favoring disclosure in securities regulation. In Justice Blackmun's view, the materiality criterion aims not to protect investors from uncertain information but rather to screen out immaterial information. When uncertain information is material to investors, the concern that it may not be evaluated accurately by unsophisticated investors does not justify its suppression.[37]

The second rejected argument, which concerns the welfare of the corporation, was that negotiated deals may fail if the corporation is required to disclose the negotiations at an early stage.[38] The agreement-in-principle test often indicates that the threshold of materiality is the point where a general outline of the deal and a price are reached. In other words, information about a transaction becomes material when the probability of consummating the deal is relatively high, but before the

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See, *e.g.*, *In re International Business Machines Corporate Sec. Litig.*, 163 F.3d 102, 110 (2d Cir. 2010). The fact that the U.S. lacks a general duty to disclose material nonpublic information is occasionally cited as a major difference between the U.S. and the E.U. in terms of securities regulation. However, this information gap has been minimized in recent years. For example, the list of events that require immediate disclosure according to Form 8-K was expanded. *See generally* THOMAS. L. HAZEN, THE LAW OF SECURITIES REGULATION 318 (6th ed. 2009). Also, as Ventoruzzo points out, stock exchanges do impose broader prompt disclosure obligations, e.g., N.Y.S.E. Company Manual, Fed.Sec.L.Rep. (CCH) ¶ 23,121 (1977); American Stock Exchange Company Guide (CCH) ¶ 10,121; Sec.Exch.Act Rel. No. 34-8995 (Oct. 15, 1970). However, these obligations are not strictly enforced. *See* Ventoruzzo, *supra* note 16, at 14.

34. *Basic*, 485 U.S. at 239 n.17 ("Silence, absent a duty to disclose, is not misleading under Rule 10b–5.").

35. According to the language of Rule 10b-5(b), it is unlawful to make false or untrue statements, a rule that is enforceable by the SEC or through civil actions.

36. *Basic*, 485 U.S. at 233.

37. *Id.* at 234.

38. *Id.*

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deal is consummated. The *Basic* Court distinguished, however, between the definition of materiality and the existence of a duty to disclose material information and noted that the issue before it was only a matter of defining the materiality test.[39]

Indeed, disclosure obligations associated with the sale of shares on the stock market, as was the case in *Basic*, have downsides that merit a broader discussion. For example, such early disclosures may prematurely expose company information to competitors. To minimize this risk, regulators in Europe give companies the discretion to delay disclosure of negotiations until the deal is closed,[40] and U.S. stock exchanges often require disclosure only in response to questions, thereby allowing the parties to keep the negotiations secret.[41] The *Basic* Court obviously preferred to sidestep this discussion.

The third rejected argument, which also concerns the welfare of the corporation, was that the agreement-in-principle test reduces corporate costs because it is a bright-line rule.[42] Under this argument, the bright-line rule reduces uncertainty about compliance with disclosure obligations, and it is a simple test that courts can apply. The Court, however, rejected the simplicity argument, implying that it favored a test that resulted in accuracy rather than symplicity. The Court held that determining materiality of information on the basis of fewer facts is likely to be less accurate than determination based on a more complex set of data, as required by the probability/magnitude test.[43]

The court concluded by adopting the probability/magnitude test as the correct test to be applied in determining the materiality of future uncertain events.[44]

B. The E.U. Bright-Line Test

The current securities regulation regime in the E.U. is the result of a long deliberative process, driven by a desire to increase investor protection and investors' faith in the integrity of markets.[45] Within this context, the E.U. puts an emphasis on a broad disclosure obligation and a

39. *Id.* at 235.

40. *See infra* notes 52-55 and accompanying text.

41. *See supra* notes 31-33 and accompanying text for the approach adopted by the U.S. SEC.

42. *Basic*, 485 U.S. at 236.

43. *Id.* ("Any approach that designates a single fact or occurrence as always determinative of an inherently fact-specific finding such as materiality must necessarily be over-inclusive or under-inclusive.").

44. *Id.* at 249.

45. Sebastian Mock, *History, Application, Interpretation, and Legal Sources of the Market Abuse Regulation*, MARKET ABUSE REGULATION COMMENTARY AND ANNOTATED GUIDE 3, 3-11 (Marco Ventoruzzo & Sebastian Mock eds., 2017).

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particular obligation to make *ad hoc* disclosures regarding ongoing events. This continuous disclosure obligation is described as a "cornerstone" of the current European securities regulation regime.[46] At the same time, the E.U. puts a strong emphasis on the need to regulate insider trading by introducing a very complex set of rules that discusses how to handle inside information.[47]

The regulation of both insider trading prohibitions and issuer disclosure duties in the E.U. is governed by the recently adopted Market Abuse Regulation (MAR).[48] The MAR has replaced the Market Abuse Directive (MAD)[49] and has direct application in the E.U. member states.

One of the major innovations within the MAR is the unification of the definitions of materiality with regard to insider trading restrictions and issuer disclosure duties. In fact, the objective of the MAR is dual: to increase uniformity and at the same time to increase the information available to investors.[50] The latter clearly results in the imposition of significant compliance costs.[51]

The notion of "inside information" is a key element of the MAR. Article 7(1)(a) of the MAR follows the definition of "inside information" provided in the MAD and holds that inside information is:

> information of a precise nature, which has not been made public, relating, directly or indirectly, to one or more issuers or to one or more financial

46. Alain Pietrancosta, *Public Disclosure of Inside Information and Market Abuse*, *in* MARKET ABUSE REGULATION COMMENTARY AND ANNOTATED GUIDE, *supra* note 45, at 47, 51-52 (stating that *ad hoc* disclosures serve the greater purpose of market efficiency and not simply the prevention of insider trading).

47. The non-exhaustive list contains: Article 7 of the Market Abuse Regulation (MAR) that defines inside information; Article 8 MAR that defines the prohibition on insider trading (or "dealing" in the preferred terminology of the MAR); Article 9 MAR which lists exceptions to the prohibition in which it is legitimate to trade; and Article 10 MAR which clarifies that disclosure of material information to third parties in itself constitutes a violation of the MAR's insider trading prohibition designed to prevent insiders from transferring material information to a large and unknown circle of outsiders. Violation of the latter prohibition is the main suspicion being investigated with regard to the Dieselgate scandal. *See supra* note 10 and accompanying text; Article 18 MAR requires corporations to keep lists of insiders in order to keep track of those who possess inside information. *See also generally* Ventoruzzo, *supra* note 16.

48. The Market Abuse Regulation (EU) No. 596/2014 (hereinafter "MAR") and the Directive on Criminal Sanctions for Market Abuse 2014/57/EU ("MAD II") became effective 3 July, 2016. The MAR is directly applicable in all E.U. member states; MAD II requires transposition into national law. The MAR and MAD II replace the previous Market Abuse Directive 2003/6/EC ("MAD I"). As far as disclosure of unfolding events is concerned, the common view is that the MAR codified preexisting law. This view is mirrored in a blog discussion on the effect of the MAR two years after it came into force, noting that "the basic rules for defining inside information have remained the same." *See* Anna Rossler, *2 Years of Market Abuse Regulation (MAR) – What Has Changed?*, EQS GROUP INVESTOR RELATIONS (July 3, 2018), https://blog.eqs.com/2-years-of-market-abuse-regulation.

49. Directive 2003/6 of the European Parliament and of the Council of 28 January 2003 on Insider Dealing and Market Manipulation (Market Abuse), 2003 O.J. (L 96) 6 (EU), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2003.096.01.0016.01.ENG.

50. *See* Pietrancosta, *supra* note 46, at 51-52.

51. *Id.*

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> instruments, and which, if it were made public, would be likely to have a significant effect on the prices of those financial instruments or on the price of related derivative financial instruments.[52]

This definition contains several elements that must be satisfied to cateorize a piece of information as inside information. First, the information must be of a "precise nature." Second, the information must not be public. Third, the information has to relate to the corporation or the financial instruments that relate to the corporation. Fourth, the information must be likely to have an effect on the price of the relevant financial instrument. Fifth, the likely effect on the price has to be "significant."

The MAR sought to clarify some of the legal uncertainties of the MAD, including the lack of clarity with respect to the meaning of "precise nature" within the aforementioned first element.[53] Article 7(2) of the MAR explains that information will be deemed to be of a "precise nature" if:

> . . . it indicates a set of circumstances which exists or which may reasonably be expected to come into existence, or an event which has occurred or which may reasonably be expected to occur, where it is specific enough to enable a conclusion to be drawn as to the possible effect of that set of circumstances or event on the prices of the financial instruments… In this respect in the case of a protracted process that is intended to bring about, or that results in, particular circumstances or a particular event, those future circumstances or that future event, and also the intermediate steps of that process which are connected with bringing about or resulting in those future circumstances or that future event, may be deemed to be precise information.[54]

Through this rather complicated definition, the MAR aims to recognize that unfolding events can be material and that even intermediate steps leading up to future events may be deemed sufficiently precise in certain situations.

For a clarification of what is "precise," the European Court of Justice's (ECJ) decision in *Geltl v. Daimler* is helpful.[55] *Geltl* concerned a current

52. MAR, Article 7(1)(a).

53. The MAR also seeks to clarify the meaning of "significant effect" on the price of a financial instrument. Article 7(4) of the MAR explains that information having a significant effect is "information [that] a reasonable investor would be likely to use as part of the basis of his or her investment decisions."

54. Article 7(3) of the MAR clarifies that "[A]n intermediate step in a protracted process shall be deemed to be inside information if, by itself, it satisfies the criteria of inside information as referred to in this Article."

55. Case C-19/11, Markus Geltl v. Daimler AG, ECLI:EU:C:2012:397 (2012). For a discussion of the case, *see also* Hartmut Krause & Michael Brellochs, *Insider Trading and the Disclosure of Inside Information after Geltl—A Comparative Analysis of the ECJ Decision in the Geltl vs Daimler Case with a View to the European Market Abuse Regulation*, 8 CAPITAL MARKETS L. J. 283 (2013). *See also* Christian Kersting, *Insider Dealing and Ad Hoc Disclosure Requirements in the New EU Market Abuse*

disclosure regarding the retirement of Detlef Schrempp, chairman of the Daimler management board. Schrempp had discussed his thoughts about stepping down with numerous members of the supervisory board and the management of Daimler.[56] Although the boards were informed, an announcement to the authorities was made only after the supervisory board decided on Schrempp's resignation. The announcement was followed by a sharp rise in the share price of Daimler. The plaintiff, Geltl, had sold his shares prior to the announcement. In a lawsuit filed in the German court, Geltl sued for compensation, arguing that the disclosure was made too late. The German court referred the matter to the ECJ for a preliminary ruling on the question of whether intermediate steps leading to a final event, in this case the resignation of the chairman, should be regarded as "precise information." The ECJ answered in the affirmative, an answer that is now codified in the latter part of Article 7(2) of the MAR.

In *Geltl*, the ECJ also addressed the probability threshold beyond which uncertain future events should be considered inside information. The ECJ held that a future event should be expected to occur if there is a realistic prospect that it will come to pass.[57] According to the Court and commentators, this wording in Article 7(2) of the MAR of the expression "reasonably… expected to occur," should not be perceived as requiring a high probability.[58]

Article 17(1) of the MAR requires issuers to disclose to the public "as soon as possible" any information that falls within the ambit of "inside information." The MAR prohibits trading by insiders when in possession of inside information,[59] but allows issuers to delay a disclosure at their own discretion and responsibility.[60] Delays are permitted where an immediate disclosure is likely to prejudice a legitimate interest of the issuer, the delay is not likely to mislead the public, and the issuer can

Regulation, 33:1 BANKING & FIN. SERVICES POLICY REPORT 15, 16-17 (2014) and the citations in footnote 28.

56. Like many large German companies, Daimler has a dual board structure; it includes a management board that runs the company, and a supervisory board that deals with monitoring and long-term agenda-setting.

57. Geltl, ECLI:EU:C:2012:397 ¶ 56.

58. *See* Kersting, *supra* note 55, at 17. In the case of Lafonta, the ECJ uses the terms "likely" and "unlikely" to determine whether a set of facts regarding a future event will be considered inside information. This strengthens our supposition that the European court draws the materiality threshold at 50% or higher. Case C-628/13 Lafonta v. Autorite des marches Financieres (11 March 2015). *See* also Jesper Lau Hansen, *Say When: When Must an Issuer Disclose Inside Information?* 18-19 (Nordic & European Company Law Working Paper No. 16-03, 2016), https://ssrn.com/abstract=2795993.

59. MAR, Art. 14. This Article also precludes attempted insider trading and the unlawful disclosure of inside information.

60. MAR, Article 17(4). In Art. 17(5) MAR adds specialized conditions regarding delayed disclosure of material inside information by credit institutions and banks.

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ensure the confidentiality of the information before it is disclosed.[61] The MAR requires issuers that have decided to delay a disclosure to notify the "competent authorities" of the delay after the disclosure is finally made and to explain how they met the conditions associated with the delay. Considering the burden this regime imposes on both issuers and regulators, however, the MAR stipulates that regulators are allowed to opt out or waive the compulsory post-delayed-disclosure report, and merely reserves the right to demand an explanation from the issuer upon request.[62]

To understand the complexity and importance of the *Geltl* case to the legal question highlighted in this Article, a brief historical detour is needed. The former MAD allowed member states to use different definitions for so-called "private information" that was subject to nationally prescribed disclosure obligations and for "material information" used for the purpose of applying insider trading restrictions.[63] Some states, like Germany, used an identical test for the terms, whereas other states such as Italy, U.K. and the Nordic states used different tests to identify the information.[64] Italy is particularly interesting, as it restricted the definition of material inside information to events that already occurred and left out information about events that are still ongoing and expected to materialize in the future.[65] The final result in the MAR is often referred to as the "one-step model," which was historically driven by Germany and unifies material information, to which a duty to disclose applies, with the imposition of insider trading prohibitions.[66] The one-step model creates a "short blanket" problem:[67] If the disclosure obligation is triggered too soon, it might stifle protracted-process events that need confidentiality in order to materialize, but if the obligation is imposed too late, insiders may use private information to their own advantage in the meanwhile. Instead of a two-step model, the MAR includes the possibility of postponing the disclosure of developing

61. *See generally* European Securities and Markets Authority, Final Report: Guidelines on the Market Abuse Regulation - Market Soundings and Delay of Disclosure of Inside Information (13 July 2016); Stefano Lombardo & Federico M. Mucciarelli, *Market soundings: the interaction between securities regulation and company law in the United Kingdom and Italy* (European Corp. Governance Inst., Working Paper No. 362/2017, 2017), http://ssrn.com/abstract_id=3012183. Articles 17(7) and 17(8) of MAR impose the obligation to disclose information as soon as possible if confidentiality has been breached, or even if a sufficiently accurate rumor undermines the secrecy of the information.

62. MAR, Article 17(4).

63. This is by virtue of the fact that a directive of the European Parliament, like the MAD, needs to be implemented by each member state in its internal law as opposed to European regulation like the MAR, which enjoys direct application in all member states. *See* Mock, *supra* note 45.

64. *See* Pietrancosta, *supra* note 46, at 54-55.

65. *Id.*

66. *Id.*

67. *See* Hansen, *supra* note 58, at 7.

events,[68] and a corresponding complex regime of maintaining internal confidentiality.[69]

The *Geltl* case, which preceded the MAR, has been criticized for confusing and "contaminating" the interpretation of materiality in insider trading because it was a disclosure case but the court considered both insider trading and disclosure arguments to interpret the definition of materiality.[70] The MAR provides clarity in that it combines the two concepts of materiality into a single definition.

Note, however, that neither the MAR nor the ECJ decision in *Geltl* proposes to combine or consider the relationship between the probability of a future event occurring and its magnitude. Hence, the balancing of probability and magnitude that characterizes materiality decisions under the U.S. regime is absent in the E.U.

C. Comparison of the Tests

As discussed, the two tests that exist for determining the point in time at which information regarding an unfolding process that is likely to materialize into a particular event in the future is considered material information are the U.S. probability/magnitude test and the E.U. bright-line test. A prohibition on trading the securities of a corporation based on inside information applies to those in possession of information from the point in time when the said information is considered material and until such time as it is disclosed. In both jurisdictions considered here, a piece of information is likely to be material if a reasonable investor is likely to use it in making his investment decision.[71]

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68. For example, if a corporation conducts confidential but material negotiations with other parties or deliberates the sale of a material unit, Article 17 of the MAR implies that such processes should be disclosed to the public unless the conditions for delayed disclosure are met. *See supra* notes 59-62 and accompanying text.

69. *See* Pietrancosta, *supra* note 46, at 53-55 (noting that the persons that are in charge of disclosure may not be identical to those that are subject to the insider trading prohibition and therefore the MAR obliges firms to keep lists of insiders so that they can be notified when a delay in disclosure of inside information occurs). Pietrancosta argues that the ability to postpone disclosure of information in real time is critical. He rejects the claim that this is a victory of "micro interests" of the issuers over the "macro-interest" of investors in the capital market. Pietrancosta argues that no issuer will be willing to list in a "modern-type financial Panopticon" where he is continuously under the public eye. *Id.* at 57. We concur with this approach, but we also argue that it reinforces our claim that materiality thresholds should be designed in a way that takes into consideration which information is most important to investors. *See infra* Section IV.B.

70. *See* Pietrancosta, *supra* note 46, at 55-56. The ECJ in *Geltl* raises the concern that undisclosed intermediate steps in a protracted process will put the investors in a position that is insufficiently protected against the improper use of inside information. *See* Case C-19/11, Markus Geltl v. Daimler AG, ECLI:EU:C:2012:397 ¶ 35 (2012).

71. Marco Ventoruzzo & Chiarra Picciau, *Article 7: Inside Information*, *in* MARKET ABUSE REGULATION COMMENTARY AND ANNOTATED GUIDE, *supra* note 45, at 175, 200.

Consider a corporation seeking to enter a transaction with another entity. The process often starts with initial negotiations, followed by a letter of intent, then a memorandum of understanding (MoU), a due diligence process, and finally a concluding agreement. The time gap between each of these steps could range from hours to years. Because a deal might go sour at any of these stages, only when it is fully consummated can one claim with absolute certainty that it is final.

The E.U. test focuses on the likelihood of the foreseen transaction being consummated. Hence, the test can be treated as a bright-line rule because when the likelihood threshold of the future transaction is crossed, the information regarding it becomes material.

The E.U. test is not a conventional bright-line rule. A conventional bright-line rule relies on a set of facts, circumstances, or hard verifiable information. For example, the signing of an MoU that contains the basic terms of the transaction and the price to be paid therein. The E.U. test is somewhat more complicated because it requires a subjective assessment of whether a particular set of "precise" facts or circumstances indicates that the transaction is more likely than not to occur.[72]

The European bright-line test is not restricted to transactions. The test can be applied to any developing event that can be broken down into steps,[73] such as a developing medical condition corporation's founder-CEO. At its initial stages, the illness may have no immediate effect on the CEO's performance, and there may be a likelihood of full recovery. But as the illness progresses, there is an increasing probability that the CEO will have to retire at some point. A foreseeable early retirement becomes material information at the moment the likelihood bright-line is crossed, which may happen just before the CEO is no longer able to perform adequately.

Although it is probabilistic, the E.U. bright-line test still differs from the U.S. test in that it always requires an *ex ante* assessment of probability, based on a clear and verifiable set of facts or circumstances. Obviously,

72. *Id.* at 180-181 (stressing that for information to be "precise" it must be specific or deal with a set of circumstantial facts).

73. European Securities and Markets Authority (ESMA) guidelines on delayed disclosure include various examples of uncertain situations that would require disclosure but also may justify a delayed disclosure: for example, "ongoing negotiations… where the outcome or normal pattern of those negotiations would be likely to be affected by public disclosure" or negotiations to prevent an event in which "the financial viability of the issuer is in grave and imminent danger, although not within the scope of the applicable insolvency law." European Securities and Markets Authority, Final Report: Guidelines on the Market Abuse Regulation - Market Soundings and Delay of Disclosure of Inside Information (13 July 2016). According to the ESMA, the announcement of a merger that is subject to regulatory approval cannot be delayed and must include the foreseen regulatory hurdles. However, a delayed disclosure would be legitimate with regard to the announcement of additional regulatory conditions imposed by the authority after a merger such as the sale of a corporate unit or a corporate activity in a particular geographic region or a prudential requirement to increase capitalization. *Id.* at 17-18.

determining the probability of a future event is very difficult.[74] Nonetheless, the European rule emphasizes that the probability of the event needs to be substantial. For a future event to be considered material, mere possibility is not enough. The probability must be clearly "positive."[75] This stands in stark contrast to the U.S. test which has no lower probability boundary below which future events are never considered material.

Magnitude is not entirely overlooked by the E.U. regulation. It is supposed to be considered by the requirement in Article 7 of the MAR that the expected price movement of the corporation's financial instruments will be "significant."[76] However, this condition raises a host of problems. For example, price movements are dependent on the subjective evaluations of investors and traders in the market. The efficiency of the market also influences price movements pursuant to disclosure of new information. In addition, sometimes the price of a share that was likely to drop as the result of a pessimistic market outlook would actually remain unchanged if any positive inside information about a potential future event is disclosed. It is unclear whether this lack of change is included in the definition of a "significant" effect on the price. These complexities stem from the fact that the E.U. regulation chooses to focus on the effect of the facts, or the circumstances on the financial instrument's price, rather than to evaluate the effect of the final event's magnitude on the corporation, as in the U.S. probability/magnitude test.[77] The probability/magnitude test, in many cases, is easier or simpler to estimate. It is no wonder then that European case law seems to avoid or at least downplay the role of price effect in the determination of materiality.[78]

The U.S. test focuses both on the probability that the event will take place and on the expected magnitude of its final effect on the corporation. Unlike the European test, the U.S. test does not require that the information be "precise."[79] This is an important difference because the

74. Ventoruzzo & Picciau, *supra* note 71, at 196 (arguing that determining the probability of a future event is "not really possible in purely abstract terms").

75. *Id.* at 192 (stressing that the probability must be "50% +1").

76. The direction of the effect on the price is irrelevant. *Id.* at 193.

77. *Id.* at 196 (arguing that adopting the probability/magnitude test would dispel some of the ambiguity of the E.U. regulation).

78. In the case of *Spector Photo Group*, the ECJ refused to discuss what a "significant" effect might mean and stressed that "[N]o fixed or even indicative threshold . . . appears appropriate," leaving the matter largely open to case-by-case interpretation. *See* Case C-45/08 Spector Photo Group NV v. CBFA ¶¶ 66-69 (2009). *See also* Ventoruzzo & Picciau, *supra* note 71, at 204.

79. Article 7 of the MAR's requirement that inside information be both "precise" and "relevant for investment choices" clearly differentiates the E.U. rule from the U.S. probability/magnitude test, "according to which even not perfectly defined events or sets of circumstances could be relevant if the probability of their occurrence is high enough . . .." *See* Ventoruzzo & Picciau, *supra* note 71, at 203.

test may deem future events that are large in magnitude but low in probability due their vague initial state as material.[80]

The difference between the tests means that the same uncertain event will become material at a different point in time in Europe and in the U.S., depending on which test is applied. Consider two identical corporations, each subject to a different materiality regime, facing the same major future event. Under the U.S. test, information about a future event of great magnitude may become material at a relatively early stage, even if the probability of the event taking place is lower than the standard bright-line likelihood. Thus, the U.S. test triggers earlier application of insider trading restrictions regarding future events of great magnitude.

Future events of smaller magnitude, however, may not be considered material information in the U.S. until a relatively advanced stage, when their likelihood of occurring is high. Under the European regime, information about a future event of smaller magnitude is subject to a disclosure obligation when the bright-line likelihood threshold is crossed, on the assumption that the event is expected to generate a significant effect on the price of the corporation's shares. This means that unless the corporation decides to delay the disclosure of this information,[81] it will have to be disclosed at this point.[82]

In other words, events of smaller magnitude are generally considered material earlier under the European than under the U.S. regime. This result could be dampened by the E.U. condition that the information must have a "significant" effect on the price. If the information concerns a

80. The definition of inside information in the MAR includes a particular clarification regarding protracted processes like mergers, making it clear that intermediate steps can and should be addressed as material information if the conditions of article 7 of the MAR are met. The wording of Article 7(3) MAR is interpreted in the literature as meaning that for an intermediate step to be considered material it must be "precise" and have in and of itself a significant effect on the price of the corporation's financial instruments. *See* Ventoruzzo & Picciau, *supra* note 71, at 204. This is different from the U.S. probability/magnitude test first because the latter test does not require precision or specificity of circumstances, and second because the U.S. rule looks at any given time at the final effect of the event on the corporation, whereas the E.U. intermediate step requires an evaluation of the potential effect that disclosure of the intermediate step will have on the price of the financial instrument. Some European scholars argue that the ECJ has relaxed the precision requirement in its decision in *Lafonta* but the probability threshold remains higher than in the U.S. *See* Mario Hoessl-Neumann & Andreas Baumgartner, *Dealing with Corporate Scandal Under European Market Abuse Law: The Case of VW* 18 (Stanford-Vienna European Union Law Working Paper No. 37, 2018), https://ssrn.com/abstract=3281009.

81. *See supra* notes 59-62and accompanying text. *See also* Alain Pietrancosta, *Public Disclosure of Inside Information*, *in* MARKET ABUSE REGULATION COMMENTARY AND ANNOTATED GUIDE, *supra* note 46, at 343, 372-375 (arguing that the process of delaying disclosure is highly formal, open to close regulatory scrutiny, and the right to delay should be interpreted narrowly).

82. The pressure to disclose in the MAR is very strong. Marco Ventoruzzo, *The Concept of Insider Dealing*, *in* MARKET ABUSE REGULATION COMMENTARY AND ANNOTATED GUIDE, *supra* note 46, at 13, 14 (describing the relationship between the duty to disclose and the prohibition on insider trading in the current E.U. regulation as "abstain *and* disclose" rather than the classic "disclose or abstain").

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relatively small event, then there might be no significant effect, ergo no materiality. However, even relatively small expected changes in the price may be considered significant in some cases.[83]

A numeric example can help illustrate our observations. Consider a corporation with an annual pretax profit of $1,000. The corporation is negotiating a transaction that is expected to increase its annual profit by $200. For the sake of simplicity, let us assume that the magnitude of the transaction does not change during the negotiations. In order to compare the two materiality tests, we must also assume that there is an expectation that the price of the corporation's shares will fully and exactly capture the magnitude of the transaction once it is disclosed, in accordance with the semi-strong Efficient Market Hypothesis (EMH).[84] Let us assume further that the threshold for materiality is a 5% or higher change in the projected profit of the corporation. In this case, the transaction is expected to increase the profit by 20%, and will therefore have a material impact on the corporation when it is consummated. At what point in the process of negotiating and bringing the transaction to closure does the information about the future transaction become material?

Under the U.S. probability/magnitude test, the corporation must evaluate both components throughout the negotiation process. Given that the annual profit is $1,000, the information about the future deal is considered material at a relatively early stage, when the probability of consummation is 25%. This is because the expected profit of $200 × 25% equals $50, which represents an expected increase of 5% over the known annual profit and therefore reaches the threshold of materiality.

Under the European bright-line test, information about the future deal should be disclosed when the precise facts indicate that the event is likely to take place. For the sake of simplicity, let us assume that likelihood of the occurrence of the future event is 50%, although it may in reality be somewhat higher. It is clear that under the European rule this transaction will become material, *i.e.*, inside information, at a later stage than under the U.S. test. Therefore, whether it takes the transaction a day, a week or a month to progress from the 25% stage to the more-likely-than-not stage, European insiders can use this time to legally trade on the basis of this information, while U.S. insiders would be breaking the law if they engaged in the same actions.

The above numeric example assumes a large transaction. The results are reversed if we examine a transaction of smaller magnitude, such as one that is expected to yield a profit of only $60. This transaction would

83. *See* Case C-45/08 Spector Photo Group NV v. CBFA ¶¶ 66-69 (2009). *See also* Ventoruzzo & Picciau, *supra* note 71, at 204.

84. According to the semi-strong form of the EMH, stock prices instantly change to reflect new public information. *See* Fama, *supra* note 12, at 404-409.

also be material when finalized because it would increase profits by 6%. According to the U.S. probability/magnitude test, the information about the future transaction will become material only when the probability of it being finalized is approximately 84%.[85] But under the European test, the information becomes material when the information is sufficiently precise and the likelihood threshold is crossed. Therefore, the information becomes material much earlier in the E.U. than in the U.S. This implies that the prohibition on insider trading is also triggered earlier in the E.U. than in the U.S.[86]

In conclusion, the possession of private information about future events is a strong incentive to trade on the basis of such information. The earlier the materiality threshold is crossed, the more difficult it is for insiders to use the information for insider trading. This is because the period of time between the burgeoning of a process and the mandated threshold of its becoming material is shortened. The interjurisdictional difference in the materiality thresholds of high-magnitude future events suggests that the restrictions on insider trading apply in the U.S. before they do in the E.U. U.S. regulators appear to replace the broad European *ex ante* disclosure regime with strict *ex post* enforcement of insider trading prohibitions, which Armour *et al.* described as "the most zealous" in the world.[87]

III. IMPLICATIONS OF DEFINING MATERIALITY DIFFERENTLY

The interjurisdictional difference in determining materiality is not merely a theoretical exercise. It has implications for transnational corporations that may seize regulatory arbitrage opportunities to avoid burdensome disclosure regimes and the associated liability. The difference also has implications in the case of cross-border mergers and

85. Indeed, if the profit from an expected transaction in our example is $50, according to the European standard the information regarding the transaction will become material when it is likely to be finalized, whereas under the U.S. test it becomes material only when the transaction is absolutely final.

86. Because of the European court's fuzzy interpretation of the term "significant" change in the price, the result with regard to the difference in the timing of materiality under the two tests may be weak in smaller events. However, smaller events are by definition less important to investors and present less profits for opportunistic insiders. Our example shows robustly that in events of larger magnitude the two tests trigger materiality at significantly different times.

87. John Armour, Martin Bengtzen, & Luca Enriques, *Investor Choice in Global Securities Markets* 58 (European Corp. Governance Inst., Law Working Paper No. 371, 2017), http://ssrn.com/abstract_id=3047734. *See also* Lev Bromberg, George Gilligan & Ian Ramsay, *The Extent and Intensity of Insider Trading Enforcement – an International Comparison*, 2016 J. CORP. L. STUD. 1 (2016) (an international comparison of public enforcement of insider trading, concluding that the U.S. imposes the highest dollar value sanctions); Lawrence A. Cunningham, *Accounting and Financial reporting: Global Aspirations, Local realities*, *in* THE OXFORD HANDBOOK OF CORPORATE LAW AND GOVERNANCE 489, 496 (Jeffrey N. Gordon & Wolf-Georg Ringe eds., 2018) (few countries match the intensity of U.S. enforcement in securities regulation); Pietrancosta, *supra* note 46, at 57 (hinting that the E.U.'s strict disclosure regime may be a response to weak enforcement of securities laws).

acquisitions of listed corporations. This Part addresses the risks posed by the interjurisdictional difference in defining materiality to the enforcement of insider trading prohibitions.

A. Transnational Corporations

In the global modern world, companies look beyond the limits of their domestic market. For example, Volkswagen, whose headquarters is in Wolfsburg, Germany,[88] has plants in many parts of the world, including Argentina, Brazil, China, India, Mexico, Poland, Portugal, Russia, Slovakia, South Africa, Spain, and the U.S.[89] Its vehicles are sold worldwide.[90] In 2016, Volkswagen was the largest automaker based on worldwide sales.[91] And although the Frankfurt Stock Exchange is the primary place of listing for its stock, the Volkswagen-sponsored ADRs are also traded over-the-counter in the U.S.[92]

Following the exposure of the Dieselgate emissions scandal, in September 2015, collective action proceedings have been launched against Volkswagen in the U.S., where the manipulations were revealed, and in Germany, where the key decisions were made and where all of the company's decision makers are located.[93] These legal proceedings focus on whether Volkswagen violated securities laws by delaying the disclosure of the EPA's discovery of its manipulation of emissions tests in the U.S. In Germany, there is also an investigation into alleged violations of inside information restrictions.

Because the discovery by U.S. authorities of the Volkswagen manipulation is an event that has implications of great magnitude, the information about this event and its direct implications becomes material at an earlier stage under the U.S. probability/magnitude test than under the E.U. test. This is because, as discussed earlier, information about a significant future event may become material under the U.S. test even when the likelihood of the event taking place is lower whereas it would not become material under the E.U. bright-line test. Although the basic facts of the legal proceedings against Volkswagen are the same in the U.S.

88. *See* VOLKSWAGEN, https://www.volkswagenag.com/en.html.

89. *See* VOLKSWAGEN, https://www.volkswagen-karriere.de/en/unsere-standorte/volkswagen-im-ausland.html.

90. Nathan Bomey, *Volkswagen passes Toyota as world's largest automaker despite scandal*, USA TODAY (Jan. 30, 2017), https://www.usatoday.com/story/money/cars/2017/01/30/volkswagen-toyota-world-largest-automaker/97234320/.

91. *Id.*

92. *See* In re Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation, MDL No. 2672 CRB (JSC)3:15-md-02672-CRB, 2017 WL 66281, at *1 (N.D. Cal. Jan. 4, 2017).

93. *See supra* notes 4-9 and accompanying text.

and the E.U., the jurisdictions' approaches to determining when the discovery of the scandal became material may lead to significantly different outcomes.

Volkswagen's method of raising capital in the U.S. is rather fascinating. It has been interested in raising capital in the U.S., but the German conglomerate preferred not to expose itself to U.S. securities regulation. Therefore, instead of listing its shares on one of the U.S. stock exchanges, Volkswagen sponsored Level 1 ADRs on OTC market platforms.[94] Generally, there are three levels of ADRs—Level 1, Level 2, and Level 3—each representing the extent to which the foreign company chooses to access the U.S. securities market. Level 1 reflects the least contact with the U.S. market.[95] The increasing number of Level 1 ADR listings in the U.S. attests to the fact that more and more non-U.S. corporations seek access to the U.S. capital markets but often try to avoid the burdensome implications of the U.S. securities regime.[96] Volkswagen clearly designed its U.S. listing in a way that reduced its exposure to U.S. securities regulation, including the probability/magnitude test. The U.S. court declined to dismiss a 10b-5 class action, which argued that Volkswagen's statements were false or misleading, on the grounds that the choice of Level 1 ADRs makes the company subject only to the disclosure regime in effect in Germany.[97]

The discrepancy in the materiality regimes described in this Article creates a race-to-the-bottom effect. When harmonization efforts in securities regulation increase,[98] even what seems to be a minor discrepancy becomes a regulatory arbitrage opportunity. The popularity of ADRs can be explained by the lower regulatory costs they impose on corporations, but investors are likely to be unaware of the implications of the materiality regime discrepancies and may find themselves at a disadvantage.[99]

94. Although treated as shares, "an ADR is the physical certificate that evidences [an] ADS . . . and an ADS is the security that represents an ownership interest in deposited securities . . .." SEC Release No. 33-6894 (May 23, 1991).

95. *See generally* Securities and Exchange Commission, Investor Bulletin: American Depositary Receipts (Aug. 2012), https://www.sec.gov/investor/alerts/adr-bulletin.pdf.

96. A study from 2015 found that most German companies that cross-listed their shares in the U.S. had de-listed by 2010, leaving only five cross-listed corporations subject to the U.S. securities law. In contrast, "95 German companies continue to cross-trade in the U.S. on the OTC market as Level 1 ADRs. By so doing, these companies enjoy the cross-listing advantages of broadening their investor base and increased visibility in the U.S., but without incurring the costs of complying with SOX and other SEC regulatory requirements." *See* Wolfgang Bessler, Fred R. Kaen, & Colin Schneck, *The Cross-Listing and Cross-Trading of German Companies in the U.S. and of Foreign Companies in Germany*, 27 J. APPLIED CORP. FIN. 58, 66 (2015).

97. *In re Volkswagen,* 2017 WL 66281 at *6.

98. *See infra* Section IV.A.

99. *See Investor Bulletin: American Depositary Receipts*, SEC. AND EXCH. COMM'N (Aug. 2012), https://www.sec.gov/investor/alerts/adr-bulletin.pdf (warning investors specifically that "non-U.S.

It is important to note that potential confusion awaits not only investors, but also international corporations, particularly those with subsidiaries in different countries. For example, consider the CEO of a U.S. subsidiary of a listed German corporation who holds Level 1 ADRs of the German parent corporation. Consider a hypothetical in which said CEO learns about a potentially negative development for the conglomerate. The parent corporation will base the decision whether to disclose the information on the European bright-line test. Hence, if the parent corporation's statement is inaccurate or delayed, an action to impose civil liability on the German corporation can be filed in a U.S. court, but would be adjudicated according to the European test.[100] But if the CEO of the U.S. subsidiary trades in the ADRs while holding the material nonpublic information, the materiality test of the information for the purpose of insider trading enforcement will be the U.S. probability/magnitude test.

This leads to the biggest concern: insider trading. The prohibition on insider trading is one of the foundations of U.S securities regulation.[101] The hidden materiality regime discrepancies described in the previous Part not only undermine the protection of cross-border investors in corporations that are subject to the European bright-line test, but also create strong incentives for insiders to act strategically in order to maximize profits at the expense of unaware investors.

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companies are subject to financial and other disclosure requirements that differ from those required of U.S. public companies . . . Any disclosure may also not be as extensive or comparable to that of U.S. public companies").

100. According to the U.S. Supreme Court's ruling in Janus Capital Group, Inc. v. First Derivative Traders 564 U.S. 135, 142 (2011) ("[f]or purposes of Rule 10b–5, the maker of a statement is the person or entity with ultimate authority over the statement, including its content and whether and how to communicate it."). When a parent corporation exerts sufficient control over the activity of a foreign subsidiary, a court is likely to recognize this type of ultimate liability. *See In re* Rocket Fuel, Inc. Sec. Litig., No. 14-CV-3998PJH, 2015 WL 9311921, at *10 (N.D. Cal. Dec. 23, 2015). Very recently the U.S. Supreme Court also held that a disseminator of a statement who was not the "maker" of that statement can be held primarily liable for fraudulent misstatements under Rules 10(b)-5(a) and (c), thereby opening the door for potential divergence in liability for such statements between a "maker" subject to liability in Europe and a disseminator subject to liability in the U.S. *See* Lorenzo v. SEC, Case 17-1077, 2019 WL 1369839 (U.S. Mar. 27, 2019).

101. The U.S. is considered the first to have enacted anti-insider trading laws, with the major securities Acts being enacted in 1933 and 1934. Most E.U. countries, however, only started regulating insider trading only in the 1990s. The U.S. and the E.U. have different theoretical approaches to insider trading. In the U.S., the prohibition on insider trading is founded on fiduciary duties of the insider towards the corporation, whereas the E.U. probation is based on a parity-of-information approach. *See* Ventoruzzo, *supra* note 82, at 13-19. The U.S. Supreme Court adopted the fiduciary duty rationale in the famous *Chiarella* case. *See* Chiarella v. United States 445 U.S. 222 (1980). In *United States v. O'Hagan*, 521 U.S. 642 (1997) it broadened the prohibition to cases in which the trader misappropriated inside information belonging to the corporation. The discussion of the theoretical rationales for imposing insider trading prohibitions is outside the scope of this Article, which focuses on the implications of using different tests for determining *when* information becomes inside information. This legal determination precedes the question of whether the information has been used unlawfully.

Financial research shows that managers engage in insider trading.[102] The premise that insider trading opportunities distort managerial decision-making is also practically undisputed.[103] There is ample evidence that managerial delay of timely disclosures is often caused by the ability to trade on inside information.[104] Managers, as corporate insiders, are likely to distort corporate decision-making for personal gains, particularly if this kind of distortion is legal and poses no risk of sanctions. The discrepancy between the U.S. and the E.U. tests for determining materiality presents such an opportunity.[105]

Consider now a German CEO who holds shares in the German parent corporation, as opposed to the CEO of the U.S. subsidiary who holds Level-1-ADRs. Assume that both managers come into possession of information about the devastating, yet imprecise implications of an unfolding investigation into corporate wrongdoing. For the CEO of the U.S. subsidiary, the probability/magnitude test triggers an immediate prohibition on insider trading. By contrast, the German CEO gets a golden opportunity to dump the toxic shares before the information becomes specific and precise enough to be considered inside information under E.U. bright-line test.

The possibility of profiting (or avoiding a loss) from information before it becomes material harms the corporation and its shareholders in many ways. For example, insiders are likely to spend more time trying to obtain information rather than conducting their corporate duties in order to line their own pockets. Moreover, when insiders have an influence on corporate decisions, they have an incentive to distort these decisions in ways that create trading opportunities that would be prohibited under U.S. securities regulation.[106]

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102. *See* Anastasia Kraft, Bong Soo Lee & Kerstin Lopatta, M*anagement Earnings Forecasts, Insider Trading, and Information Asymmetry* 26 J. CORP. FIN. 96 (2014).

103. In fact, even the greatest opponent of insider trading restrictions, Henry Manne, concedes that inside information creates profit opportunities and hence can incentivize managerial behavior. Manne's highly contested argument was that insider trading is a legitimate method of rewarding managers for profit maximization. *See* HENRY G. MANNE, INSIDER TRADING AND THE STOCK MARKET (1966); Ronald A. Dye, *Insider Trading and Incentives*, 57 J. BUS. 295 (1984).

104. *See* Robert J. Haft, *The Effect of Insider Trading Rules on the Internal Efficiency of the Large Corporation*, 80 MICH. L. REV. 1051, 1053-60 (1982).

105. Research on jurisdictional differences in the level of insider trading restrictions argues that differences in remuneration levels are explained by the ability of managers to profit from laxer insider trading laws. *See* David J. Denis & Jin Xu, *Insider Trading Restrictions and Top Executive Compensation*, 56 J. ACCOUNTING & ECON. 91 (2013).

106. *See* Victor Brudney, *Insiders, Outsiders, and Information Advantages under the Federal Securities Laws*, 93 HARV. L. REV. 322 (1979).

B. Cross-Border Mergers and Acquisitions

The last decade saw some of the largest cross-border mergers and acquisitions in both directions between the U.S. and Europe, and 2017 marked a record year for such transactions.[107] The trend continued in 2018, with mega-cross-border mergers such as the U.S. cable giant Comcast bidding $39 billion to acquire Sky, a leading British telecommunications conglomerate.[108] In another mega-merger, the U.K.-based multinational telecom giant, Vodafone, took over the European activities of Liberty Global, a large telecom company traded on the Nasdaq and controlled by U.S. billionaire, John C. Malone.[109] Some M&A efforts that eventually failed are also instructive from the investors' perspective: for example, the bid by U.S. pharmaceutical giant, Pfizer, to acquire the Anglo-Swedish corporation, Astra-Zeneca, in 2014;[110] the failed attempt of U.S.-based Omnicom to merge with French Publicis the same year;[111] or the recently failed attempt of the largest U.S.-incorporated smartphone chip-maker, Qualcomm, to acquire the Dutch NXP Semiconductors.[112]

An example of a successfully closed deal is German pharmaceutical company Bayer AG's acquisition of U.S. agrichemical corporation Monsanto. The deal was announced on September 14, 2016, but the first offer from Bayer to Monsanto had taken place months earlier, on May 10, 2016.[113] From the perspective of Monsanto, in the months between the

107. Pamela Barbaglia, *Cross-border M&A between U.S. and European firms at 10 year high*, REUTERS (May 22, 2017), https://www.reuters.com/article/us-europe-usa-deals/cross-border-ma-between-u-s-and-european-firms-at-10-year-high-idUSKBN18I1M6.

108. Doreen Mccallister, *Comcast Outbids Fox and Will Acquire British Broadcaster Sky*, NPR (Sept. 23, 2018), https://www.npr.org/2018/09/23/650845008/comcast-outbids-fox-and-will-acquire-british-broadcaster-sky.

109. *Vodafone to Acquire Liberty Global's Operations in Germany, the Czech Republic, Hungary and Romania*, VODAFONE (May 9, 2018), https://www.vodafone.com/content/index/media/vodafone-group-releases/2018/vodafone-liberty-global-operations-germany-czech-republic-hungary-romania.html.

110. Rupert Neate & Sean Farrell, *Pfizer pulls out of fight for AstraZeneca*, THE GUARDIAN (May 19, 2014), https://www.theguardian.com/business/2014/may/19/pfizer-pulls-out-battle-pharmaceutical-takeover-astrazeneca.

111. *Publicis-Omnicom $35bn Merger Deal Called Off*, BBC NEWS (May 9, 2014), https://www.bbc.com/news/business-27336870.

112. *Press Release: Qualcomm Announces Termination of NXP Acquisition and Board Authorization for $30 Billion Stock Repurchase Program*, QUALCOMM (July 26, 2018), https://www.qualcomm.com/news/releases/2018/07/26/qualcomm-announces-termination-nxp-acquisition-and-board-authorization-30.

113. *Bayer and Monsanto to Create a Global Leader in Agriculture*, BAYER AG (Sept. 14, 2016), https://media.bayer.com/baynews/baynews.nsf/id/ADSF8F-Bayer-and-Monsanto-to-Create-a-Global-Leader-in-Agriculture. The companies needed two more years to finalize the deal after the announcement. *See Bayer Closes Monsanto Acquisition*, MONSANTO (June 7, 2018), https://monsanto.com/news-releases/bayer-closes-monsanto-acquisition.

first offer and the formal announcement, the information about the potential acquisition would have been considered material at a relatively early stage if the U.S. probability/magnitude test governed. By contrast, from the point of view of Bayer, the materiality threshold was reached late if the European bright-line test governed. Although the corporations announced the deal together, the corporate officers were subject to different "silent periods"—the term used to describe the time during which insiders are banned from trading because they are in possession of material nonpublic information. The time-arbitrage creates an incentive for insiders to trade on information not yet considered material in their regime.[114]

Similarly, in 2015, the American international delivery company FedEx, listed on the NYSE, acquired TNT Express, a European and global delivery corporation listed on the Dutch stock exchange, for $4.8 billion.[115] The two corporations announced the deal simultaneously,[116] but because of the different materiality regimes, the U.S. corporate insiders at FedEx were subject to insider trading restrictions much earlier than were their Dutch counterparts.

In 2017, the Nasdaq-listed U.S. food company Kraft-Heinz attempted to take over the even larger European conglomerate Unilever, listed on both the London and the Dutch stock exchanges.[117] Kraft-Heinz initially approached Unilever confidentially, but later confirmed that a bid was made. Only after the public confirmation did the board of Unilever confirm receiving the bid and rejecting it, despite its being priced 18% above the London closing price of Unilever. The information about the bid triggered a surge in the price of Unilever stock.[118] In this case, the initial approach by Kraft-Heinz would have been considered material information according to the U.S. test because of the magnitude of the event, although the potential acquisition was far from certain. In contrast, the offer did not cross the European bright-line threshold, making it particularly attractive for insiders of the target company to trade on the

114. A study conducted in the U.S. indicates that the time period between the occurrence of an event and its subsequent disclosure is particularly attractive for insider trading. *See* Alma Cohen, Robert J. Jackson, Jr. & Joshua R. Mitts, *The 8-K Trading Gap* (Colum. Law Sch., Colum. Law & Econ. Working Paper No. 524, 2015), ssrn.com/abstract_id=2657877.

115. Chad Bray, *FedEx Agrees to Acquire TNT Express in $4.8 Billion Deal*, N.Y. TIMES (Apr. 7, 2015), https://www.nytimes.com/2015/04/08/business/dealbook/fedex-agrees-to-acquire-tnt-express-in-4-8-billion-deal.html.

116. *Id.*

117. Martinne Geller & Pamela Barbaglia, *Kraft Heinz bids $143 billion for Unilever in global brand grab*, REUTERS (Feb. 17, 2017), https://www.reuters.com/article/us-unilever-m-a-kraft/kraft-heinz-bids-143-billion-for-unilever-in-global-brand-grab-idUSKBN15W18Y.

118. Will Martin, *Unilever, the £112 billion maker of the world's most popular brands, rejected a takeover bid from Kraft Heinz*, BUS. INSIDER (Feb. 17, 2017), http://uk.businessinsider.com/kraft-confirms-unilever-merger-approach-2017-2.

basis of their private information.

In the case of cross-border transactions, the arbitrage created by the divergence in the threshold of materiality has two consequences. First, even when the announcement about the merger is coordinated and made jointly, as was the case in some of the deals discussed above, the different materiality regimes mean that the information about the ongoing negotiations becomes material at different points in time for the European and the U.S. corporate insiders, thereby producing a dangerous gap in the application of insider trading prohibitions. Because the U.S. probability/magnitude test comes into effect earlier when the deal's magnitude is larger, European stock exchanges are exposed to regulatory-arbitrage-based trading by insiders in cross-border M&A situations.[119]

Furthermore, given that the application of the European materiality test to intermediate deal steps depends on the deal's precise facts or a verifiable set of circumstances, top insiders have an incentive to strategically navigate negotiations in a way that delays the triggering of insider trading prohibitions. For example, managers may structure the outline of a merger without agreeing on the price or draw out the process of drafting an MoU for as long as they need in order to acquire a favorable position in the stock market. Such opportunistic behavior not only undermines the parity-of-information in the market but also harms the corporation itself. It harms the coporation first because transactions are not concluded as efficiently and quickly as they should, and second because managers have an incentive to seek those transactions that create legitimate insider trading opportunities, even if these are not necessarily the optimal deals that further the corporation's interest.[120]

IV. THE PROPOSED SOLUTION: A GLOBAL TEST

This Part proposes adopting the probability/magnitude test as the global test for determining the materiality of future events. The proposal is based on both the advantages of harmonizing securities regulation and the superiority of the probability/magnitude test over the alternative bright-line test.

119. Even uncertain information that is not material can still be valuable. *See* Jesse M. Fried, *Insider Trading via the Corporation*, 162 U. PA. L. REV. 801, 809 (2014) (arguing that insiders can profit from "sub-material" information). This is particularly true for initial very uncertain information about high-magnitude events. The U.S. probability/magnitude test puts such potential information under the restriction of the insider trading blanket, whereas the E.U. bright-line test fails to do so and also fails to impose disclosure.

120. Saul Levmore, *Securities and Secrets: Insider Trading and the Law of Contracts*, 68 VA. L. REV. 117, 148 (1982) (arguing that managerial incentives may result in allocative inefficiency by encouraging overinvestment in activities that generate opportunities for insider trading).

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A. Harmonizing Securities Regulation

The globalization of world securities markets has become a well-established fact shown both in multinational offerings by issuers and in investment in foreign securities by investors.[121] Many companies choose to raise capital or list their shares on foreign markets. By the end of 2015, 923 foreign companies were registered with the U.S. SEC and reported according to its Rules.[122] Investors worldwide look beyond the limits of their domestic markets for investment opportunities.[123] Along these lines, investors tend to diversify their portfolios between several markets to minimize risks and to take advantage of fluctuations in currency exchange rates.[124] Technology affords investors nearly limitless investment opportunities around the globe.[125]

Research has shown that the harmonization of securities regulation in the global market would result in a more efficient securities market, a significant reduction in the cost of equity, a higher level of investor protection, pooling of the expertise and experience of the world's securities regulators, and an end to the international race-to-the-bottom in securities regulation.[126] To this end, this Article proposes a global rule for

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121. *See* Joseph A. Grundfest, *Internationalization of the World's Securities Markets: Economic Causes and Regulatory Consequences,* 4 J. FIN. SER. RES. 349, 349-367 (1990) (analyzing the process of internationalization of securities markets and its causes); Susan Wolburgh Jenah, *Commentary on* A Blueprint from Cross-Border Access to U.S. Investors: A New International Framework, 48 HARV. INT'L L.J. 69, 69–70 (2007) ("Globalization is a fact. Innovative technologies are driving faster and more efficient trading, and they do not recognize national borders. Capital market participants are expanding their business activities into foreign markets. Investors are seeking international investment opportunities."); Roberta S. Karmel, *The Case for a European Securities Commission*, 38 COLUM. J. TRANSNAT'L L. 9, 31 (1999) ("[S]ecurities trading has become globalized and stock exchanges conduct business in a manner that transcends national boundaries."); David E. Van Zandt, *The Regulatory and Institutional Conditions for an International Securities Market,* 32 VA. J. INT'L L. 47 (1991) (describing the reasons for the internationalization of securities markets).

122. U.S. Securities and Exchange Commission, International Registered and Reporting Companies (Dec. 31, 2015), https://www.sec.gov/divisions/corpfin/internatl/companies.shtml. A reporting company is a company registered under the Securities Exchange Act of 1934, 15 U.S.C. § 78(a) *et seq*.

123. *See, e.g., U.S. Competitiveness and Trade Policy in the Global Economy: Hearing Before the Comm. on Banking, Hous., and Urban Affairs*, 103rd Cong., 2d Sess. 129 (1994) (Statement of Arthur Levitt, Chairman, U.S. Securities and Exchange Commission, concerning *International Markets and Individual Investors), available in* 1994 WL 525473 (F.D.C.H.) ("Just as no man is an island, no investor today is only a domestic investor. We are all, whether we like it or not, affected by developments in the international securities markets.")

124. For the advantages stemming from the diversification of investment portfolios, *see* RICHARD A. BREALEY ET AL., PRINCIPLES OF CORPORATE FINANCE 196–98 (10th ed. 2011).

125. *See* Edward F. Greene, *Beyond Borders: Time to Tear Down the Barriers to Global Investing*, 48 HARV. INT'L L.J. 85, 86 (2007).

126. *See* Uri Geiger, *The Case for the Harmonization of Securities Disclosure Rules in the Global Market,* 1997 COLUM. BUS. L. REV. 241 (1997) (citing various economic theories to support the argument that harmonization is the most efficient approach for regulating securities disclosure rules in the global market); Grundfest, *supra* note 120, at 370-73 (suggesting that the harmonization of securities registration requirements would reduce costs for international investing); Eric C. Chaffee, *Finishing the Race to the*

determining when an uncertain future event should be deemed material information.

Opponents of the harmonization of international securities regulation argue that such an approach would eliminate the benefits of regulatory competition.[127] It may also create a suboptimal regulatory regime because harmonization hinders regulatory innovation and prevents a race-to-the-top, as national regulators compete to attract issuers, investors, and other market players.[128] This argument has some merit, but not in the present context. Note that in the U.S. securities market, both tests for determining the materiality of information regarding future events—the probability/magnitude test and the bright-line agreement-in-principle test—were implemented by courts.[129] The regulatory competition between the two tests ended with the decisions by the U.S. Supreme Court in *Basic* and *TGS* concerning the superiority of the probability/magnitude over the agreement-in-principle test. The superiority of the probability/magnitude test is proven by its survival, despite the difficulty it imposes on market participants, which in many cases are powerful corporations and senior executives with considerable financial means, that are able to influence the shaping of norms.

B. The Superiority of the Probability/Magnitude Test

The decisions of the U.S. Supreme Court in *Basic* and in *TGS* address and reject the potential downsides of the probability/magnitude test but fail to discuss its advantages in detail. This Article focuses on the advantages of adopting the probability/magnitude test as the global test for insider trading prohibitions.

First, the greater the magnitude of the event, the higher the expected profit that can be gained from information about the event before its disclosure. The U.S. regime casts a wider net across potentially lucrative inside information about unfolding events to guarantee enforcement of insider trading prohibitions at an earlier stage than does the European rule.

Bottom: An Argument for the Harmonization and Centralization of International Securities Law, 40 SETON HALL L. REV. 1581 (2010) (arguing that harmonization of international securities regulation will help minimize risks in the emerging capital markets, increase market efficiency, and pool the expertise and experience of securities regulators worldwide).

127. *See, e.g.,* Roberta Romano, *The Need for Competition in International Securities Regulation*, 2 THEORETICAL INQUIRIES L. 387 (2001) (arguing that regulatory competition is desirable over a uniform international regulatory scheme); Roberta Romano, *Empowering Investors: A Market Approach to Securities Regulation*, 107 YALE L.J. 2359 (1998) (arguing for "competitive federalism" as a system of securities regulation).

128. *See* Tzung-bor Wei, *The Equivalence Approach to Securities Regulation*, 27 NW. J. INT'L L. & BUS. 255, 256 (2007) ("[R]egulatory competition fosters innovation because countries must compete with each other to attract market participants.").

129. *See supra* Section II.A.

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Hence, the probability/magnitude test would be better suited to promote parity-of-information in the securities market. Furthermore, since insider trading undermines trust in the integrity of markets, this Article should raise particular concerns for U.S. investors whose capital is subject to E.U. regulation. Adopting the U.S. test would increase investor protection and trust and consequently incentivize for cross-border financial investments.

Second, the probability/magnitude test evaluates whether the information under review will have an effect on the corporation. In contrast, the E.U bright-line test focuses on the future event's effect on the value of the corporation's financial instruments. Clearly, some information is important for the corporation and its stakeholders even if the value of the corporation's shares will not be affected by it. For example, a planned change in the leadership of the corporation in which a respected CEO will step down to make place for a long-groomed and well-prepared successor may not cause a significant change in the value of the corporation's shares, but surely will be considered material for investors and insiders alike. Moreover, the focus of the European test on the share price movements rather than the influence on the corporation is problematic for several reasons: price movements are dependent on the subjective evaluations of investors and traders in the market; they may be affected by various factors other than the newly discovered information; and the efficiency of the market also influences price movements pursuant to disclosure of new information.

Third, the probability/magnitude test is fact-intensive,[130] but not fact-specific. The test thereby has the potential to improve corporate governance and decrease managerial opportunism. This is because the probability/magnitude test requires an ongoing evaluation of the facts of the unfolding event in real time to make a decision on its materiality. In terms of insider trading prohibitions, the test requires those corporate officers in charge of compliance to be fully updated at all times and consequently improves the efficiency of the company's flow of information.

It follows that the probability/magnitude test also guarantees that when corporations disclose intermediate steps, these disclosures will at all times be up to date, incorporating changes in the information as soon as they happen. At the same time, the wider net of information covered by the U.S. test and the fact that the test will not be triggered by a set of specific facts means that it will be harder for insiders, even in top positions, to opportunistically manipulate corporate decision-making or anticipate it in

130. LOUIS LOSS & JOEL SELIGMAN, SECURITIES REGULATION 2071 (3rd ed. 1989); Stefan J. Padfield, *Immaterial Lies: Condoning Deceit in the Name of Securities Regulation*, 61 CASE W. RES L. REV. 143, 153 (2010).

ways that create profits from inside information.

Fourth, the probability/magnitude test is universal in that it can be applied to any type of information regarding uncertain events. By contrast, the agreement-in-principle test generally fits agreement-related situations, but is difficult to mold to an event that takes on other forms. It could be argued that the agreement-in-principle test is merely one manifestation of a bright-line rule, and that such a rule can be developed separately for each type of future event. Indeed, the E.U. test is a probabilistic test, but it still requires precise facts or a set of verifiable circumstances in order to be triggered. In other words, courts would have to develop specific factual or circumstantial thresholds on a case-by-case basis that can be applied to certain categories of future events. This type of regime has two important disadvantages. First, courts would have to spend significant judicial resources to develop bright-line rules for each and every case at hand.[131] Second, given the complexity of real-life future events, in many situations, corporate decision makers would face uncertainty with regard to the applicable bright-line rule until such a rule is developed by the courts. Moreover, even if rules have already been developed, courts in different jurisdictions may adopt different rules in similar cases, generating confusion for market players.

Finally, the European markets are characterized by the prevalence of corporations controlled by blockholders (an individual investor or group of investors).[132] Because the interests of significant blockholders are often represented on the board of the corporation, there is a higher likelihood that they will be privy at an early stage to nonpublic information about consequential future events in the life of a publicly held corporation.[133] To the extent that exposure to private information is currently used for trading on the basis of such information by insiders within corporations or by blockholders,[134] such trading would be restricted under the

131. Partnoy argues that because of the complexity of the current financial world, standards should be preferred over rules as a disclosure regime. *See* Frank Partnoy, *A Revisionist View of Enron and the Sudden Death of "May,"* 48 VILL. L. REV. 1245, 1262-69 (2003). The legal literature has discussed intensively the differences between rules and standards. *See, e.g.,* Louis Kaplow, *Rules Versus Standards: An Economic Analysis*, 42 DUKE *L. J.* 557 (1992).

132. *See, e.g.*, MARCO BECHT & COLIN MAYER, *Introduction* to THE CONTROL OF CORPORATE EUROPE 1, 18 (Fabrizio Barca & Marco Becht eds., 2001) (finding that in 50% of non-financial listed companies in Austria, Belgium, Germany, and Italy, a single blockholder controls more than 50% of voting rights, whereas in 50% of Dutch, Spanish, and Swedish companies, a single blockholder controls more than 43.5%, 34.5%, and 34.9% of votes, respectively); Mara Faccio & Larry H.P. Lang, *The Ultimate Ownership of Western European Corporations*, 65 J. FIN. ECON. 365, 378–83 (2002) (noting that only around 37% of Western European firms are widely held).

133. Pursuant to a guarantee of confidentiality, nonpublic information can be shared between management and controlling shareholders or blockholders. *See* Ventoruzzo, *supra* note 16, at 20.

134. Because the private information may not be material according to the E.U. test at a relatively early stage, trading on the basis of this information would not violate insider trading prohibitions.

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probability/magnitude test because the materiality threshold of high-magnitude future events would be crossed earlier.

V. CONCLUSION

The global adoption of the probability/magnitude test for determining the materiality of future events would achieve a meaningful global policy objective. Regardless of whether one is optimistic or pessimistic about the future, predictions about potential developments in the lives of publicly held corporations matter to investors. The ever-increasing desire of investors to diversify their portfolios not only across industries but also across countries, so as to reduce systemic risks, fuels a growing need to guarantee the integrity of cross-border investment opportunities in financial markets.

Adopting the U.S. probability/magnitude test as a global test for assessing the materiality of predicted events would serve this policy objective. Although this test, as compared to a bright-line rule, may be somewhat more of a burden for corporations, it has the advantage of promoting confidence in the integrity of stock markets and corporations around the globe. The U.S. probability/magnitude test casts a wider net on events of greater material consequence than does the E.U. bright-line test. In this respect, the probability/magnitude test serves the integrity of the stock markets better by guaranteeing that corporate insiders do not profit opportunistically from nonpublic material information and that top executives focus on maximizing corporate profits rather than on seeking self-serving trading opportunities.

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