NOTE

REGULATING DEMOCRATIZED FINANCE: CRYPTOCURRENCY, RETAIL BROKER-DEALERS AND THE SEC'S REGULATORY PERIMETER

Eric Rolston*

The SEC has long been faced with the difficult task of regulating financial market innovations, and the rise of fintech has increased the complexities faced by the agency. As fintech entities grew in popularity among retail investors and moved financial markets closer to what some call "democratized finance," calls for new regulations grew louder. After years of hesitancy, investigation and regulatory uncertainty, the SEC has been increasingly responsive to these calls.

This Note reviews and conceptualizes the SEC's approach to regulating new developments in financial market access since the agency's founding in the 1930s. This Note begins with a review of prior SEC approaches to regulation through either enforcement or the promulgation of new regulations, and then reviews how the agency has used these approaches when regulating two prominent fintech segments: online retail-broker dealers and cryptocurrency entities. Lastly, the Note proposes two frameworks to conceptualize historical and contemporary regulatory approaches by the agency. Ultimately, by reviewing prior instances of regulation, contemporary issues and frameworks, this Note aims to give

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greater clarity to how the SEC has and will continue to regulate financial market innovations, in particular as it relates to "democratized" financial markets.

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I. INTRODUCTION

Throughout its history, the Securities and Exchange Commission (SEC) has faced the difficult task of regulating newly developed financial products and services.[1] In recent years, perhaps the most significant source of new challenges have been those associated with fintech entities and efforts to "democratize" financial markets.[2]

[1] At times, the agency has invoked the broad authority initially granted in the 1930s to regulate new products and services. *See infra* Section II.A. At other times, the SEC has lobbied Congress for additional regulatory authority, expanding the agency's regulatory perimeter. *See infra* Section II.B.

[2] "Democratized finance" invokes the idea that society will benefit if financial markets should are and accessible to everyone. ESWAR PRASAD, THE FUTURE OF MONEY 21 (2021). "Democratization" or "democratized finance" are terms used by advocates of the fintech products and entities reviewed in this Note, but "market access" may be more apt given the focus on the ability of small investors to invest in financial markets without significant barriers to entry. Barriers to entry include high transaction costs as well as access to markets on unequal terms relative to larger institutional investors. Connoting this concept with "democracy" is imperfect because while eliminating barriers to entry may create equal "access" to markets, there is not a contention this will result in participants having equal power to decide the market's governance. JULIA C. OTT, WHEN WALL STREET MET MAIN STREET 4–5 (2011). For criticisms of the conception of "democratized" finance, see Saule T. Omarova, *New Tech v. New Deal: Fintech as a Systemic Phenomenon*, 36 YALE J. ON REG. 735, 789–90 (2019) ("Democratizing finance cannot be reduced to a purely technical exercise in decentralizing financial services or making them cheaper through the use of algorithms. It is an inherently political exercise, and only a democratic polity can achieve that goal through a coherent and comprehensive program of institutional programs.").

The idea of democratized finance is not new. The concept predates the creation of the SEC in the 1930s.[3] However, democratized finance has taken on new relevance as retail investors gain increasing access to financial markets. Retail investors are now able to open trading accounts without minimum account balances and trade fractions of stocks or cryptocurrency assets without paying commissions.[4] These retail investors encompass a disparate group of individuals: They may be uninformed and trading in response to referral incentives, advertisements, or social media posts; or they may be experts trading using established investment strategies. Cryptocurrency entities and online retail broker-dealers[5] have been key proponents of democratized financial services.[6] But as markets became more accessible to retail investors, calls for new regulations of these entities grew louder.[7] The SEC has been increasingly responsive to these calls after years of uncertainty about how best to approach these new developments.[8]

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3 *See, e.g.*, JULIA C. OTT, WHEN WALL STREET MET MAIN STREET 4 (2011) (noting that prior to the Great Depression, some in the financial industry argued that "investor democracy" would provide a "tonic for the ailments that corporate capitalism had inflicted").

4 *See infra* Section III.B.

5 For overviews of cryptocurrencies and online retail brokers, see *infra* Sections III.A.1, III.B.1.

6 *See, e.g.*, Robinhood, Prospectus (Form S-1 Registration Statement) 42 (July 1, 2021) (noting that the company's mission is to "democratize finance"); Coinbase, Prospectus (Form S-1 Registration Statement) 125 (Feb. 25, 2021); DAVID W. PERKINS, CONG. RSCH. SERV., R46332, FINTECH: OVERVIEW OF INNOVATIVE FINANCIAL TECHNOLOGY AND SELECTED POLICY ISSUES 24 (2020); Ephrat Livni, *Welcome to 'Web3.' What's That?*, N.Y. TIMES (Dec. 5, 2021), https://www.nytimes.com/2021/12/05/business/dealbook/what-is-web3.html [https://perma.cc/TCV3-9KQV]; Eric Lipton & Ephrat Livni, *Crypto's Rapid Move Into Banking Elicits Alarm in Washington*, N.Y. TIMES (Sept. 5, 2021) (statement from company executives), https://www.nytimes.com/2021/09/05/us/politics/cryptocurrency-banking-regulation.html [https://perma.cc/DQN6-SWBU].]

7 *See, e.g.*, *supra* Sections III.A.2, III.B.2.

8 *Id.*

These moves toward greater regulation of fintech and democratized finance entities have raised three key questions for the agency, policymakers and market participants. First, the threshold question is whether the SEC has authority to regulate new market developments, i.e. whether new products and markets fit within the agency's "regulatory perimeter."[9] Second, assuming such authority exists, whether existing regulations are adequate or whether new regulatory frameworks tailored to these innovations would better promote the integrity of financial markets. Third, as the SEC and policymakers consider how best to regulate these entities, whether the SEC should promote increased access to public markets or instead add restrictions or erect roadblocks to counteract the reduction of barriers to entering financial markets associated with fintech products and services.

This Note considers these questions and reviews frameworks to conceptualize the regulation of financial market innovation. Part II first reviews a simple model that includes two broad approaches to the regulation of financial market innovations: (1) applying existing regulatory frameworks to new assets or services through expanded enforcement (illustrated by the flexible application by the SEC of the term "security" to new market developments) and (2) establishing new regulatory frameworks through detailed rulemaking (illustrated by the development of the National Market System regulations beginning in the early 1970s by the SEC).[10] Part III then reviews how the SEC has used these

[9] The "regulatory perimeter" refers to the legal rules that govern a certain area and refer to the jurisdiction of agencies to act within certain market segments. *See, e.g.*, Nicholas K. Tabor, Katherine E. Di Lucido & Jeffery Y. Zhang (2021), *A Brief History of the U.S. Regulatory Perimeter*, Finance and Economics Discussion Series 2021-051. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2021.051 [https://perma.cc/38W6-LGP3].

[10] While the analysis in Part II focuses on the SEC, similar considerations apply to other agencies. For instance, agencies and courts must consider the importance of market access and breadth of terms such as "business of banking" when considering the authority of the Office of Comptroller of the Currency (OCC). *See, e.g.*, Lacewell v. Off. of Comptroller of Currency, 999 F.3d 130, 135–36 (2d Cir. 2021) (reversing a decision on

approaches in recent years when regulating financial market innovations that aim to democratize finance – specifically in the recent regulation of cryptocurrencies and online retail broker-dealers.

Lastly, Part IV proposes two frameworks to conceptualize the regulation of financial market innovations by the SEC. First, this Part presents a framework to understand the SEC's application of existing regulations to new developments through enforcement of existing securities laws as opposed to the creation of new, more tailored, regulations. Part IV then presents a framework to consider when limitations to market access may be appropriate to counteract increasing access in these markets due to reductions to barriers to entry.

Ultimately, by reviewing prior instances of regulation, contemporary issues and frameworks, this Note aims to give greater clarity to how the SEC has and will continue to regulate financial market innovations, in particular as it relates to "democratized" financial markets.

II. SEC REGULATION OF FINANCIAL MARKET INNOVATIONS

A simple model of financial regulation posits that there are two broad approaches to regulating financial market innovations: (1) applying existing regulations to new developments; and (2) developing new regulations tailored to new developments.[11] This Part illustrates the benefits and

procedural grounds from a lower court decision finding that the OCC did not have authority to grant a new type of bank charter to a fintech company). Similar analysis also applies for the CFTC when considering the definition of "commodity." 7 U.S.C. § 1a(9) (definition of "commodity"); *see also* JOEL SELIGMAN, THE TRANSFORMATION OF WALL STREET: A HISTORY OF THE SECURITIES AND EXCHANGE COMMISSION AND MODERN CORPORATE FINANCE 595 (2003); Todd Ehret, *US Crypto Framework Begins to Evolve: A Special Report Update*, REUTERS (Oct. 22, 2021), https://www.reuters.com/legal/transactional/us-crypto-framework-begins-evolve-special-report-update-2021-10-22/ [https://perma.cc/5NYV-ZV5B].

[11] For a recent review of this "dumb model," see Matt Levine, *You Get the Crypto Rules You Pay For*, BLOOMBERG OP. (Feb. 15, 2022, 1:26 PM), https://www.bloomberg.com/opinion/articles/2022-02-15/you-get-the-crypto-rules-you-pay-for#xj4y7vzkg [https://perma.cc/KEZ7-M42L].

drawbacks of each approach by reviewing the application of the term "security" to financial instruments and the creation of the National Market System. Doing so provides historical background before considering approaches to regulating fintech.

A. Applying Existing Securities Regulations to New Market Developments

The Securities Exchange Act of 1934 ("Exchange Act")[12] created the SEC, giving the agency broad authority to regulate securities markets and market participants.[13] Because the agency regulates "securities" markets, the definition of "security" is essential to determining the SEC's authority.[14]

"Security" has a broad meaning in the Exchange Act,[15] affirmed by the Supreme Court.[16] The SEC has, throughout its history, invoked this broad authority to bring new financial products or services under existing regulatory frameworks.[17]

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[12] Securities Exchange Act of 1934, Pub. L. No. 73–291 (codified as amended at 15 U.S.C. § 78a et seq.).

[13] Prior to these Acts, regulation of securities markets was a domain generally left to the states. The FTC was initially given authority to regulate securities markets under the Securities Act of 1933; however, this changed when the Securities Exchange Act of 1934 created the SEC. SELIGMAN, *supra* note 10, at 70.

[14] Securities Act of 1933, Pub. L. No. 73–22 (codified as amended at 15 U.S.C. § 77a et seq.); *see also* John Coffee, Hillary Sale & M. Todd Henderson, Securities Regulation: Cases and Materials 259–60 (13th ed. 2015).

[15] Although not identical, the Court has consistently held that definitions in the Exchange Act of 1933 and the Securities Exchange Act of 1934 are "essentially the same,", so are treated interchangeably here. Marine Bank v. Weaver, 455 U.S. 551, 555–56 (1982).

[16] S.E.C. v. C. M. Joiner Leasing Corp., 320 U.S. 344, 351 (1943).

[17] The typical approach for defining the outer limits of securities can be shown in the process reviewed by the Court in *S.E.C. v. Edwards*, which considered whether an investment contract promising fixed returns was an 'investment contract' according to the 1933 Act and thus a 'security' subject to federal securities laws. The case arose from a civil fraud enforcement action against the promoter of this fixed return arrangement, alleging violations registration and antifraud provisions of these acts. The SEC and

The agency's authority is not unlimited, however, and not everything is a security. There are explicit exemptions for some financial assets such as currencies[18] and notes with maturities less than nine months.[19] And for more flexible terms included in the definition of "security," courts use multifactor tests to define the boundaries of the agency's authority.[20] The most prominent is the "Howey test," used to determine whether an asset is an "investment contract."[21] This test is fact-intensive, considering the characteristics of the financial instrument itself as well as the circumstances of its sale.[22]

The practical effect of a broad definition of "security" is that the agency can regulate many new financial market developments without requiring new laws from Congress.[23] In addition, an interpretation of "security" to new assets applies retroactively – covering conduct that occurred prior to the law

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the defendant argued over whether the product was in fact a 'security.' Ultimately the court found that the product at issue was a 'security' under the Securities Act of 1933. S.E.C. v. Edwards, 540 U.S. 389, 389 (2004).

[18] 15 U.S.C. § 78c(a)(10); Meredith R. Dearborn et al., *Paul Weiss Discusses Federal Jury Verdict Finding Cryptocurrency Products Not Securities*, CLS BLUE SKY BLOG (Nov. 23, 2021), https://clsbluesky.law.columbia.edu/2021/11/23/paul-weiss-discusses-federal-jury-verdict-finding-cryptocurrency-products-not-securities/ [https://perma.cc/9J9X-GLTA].

[19] 15 U.S.C. § 78c(a)(10); *US District Court for Southern District of NY Confirms Leveraged Loans are Not Securities*, SHEARMAN & STERLING (Feb. 24, 2021), https://www.shearman.com/Perspectives/2021/02/US-District-Court-for-the-Southern-District-of-NY-Confirms-that-Leveraged-Loans [https://perma.cc/PB2V-2HY4].

[20] For an overview of such tests, see, for example*, id*.

[21] This test considers whether the instrument involves (1) an investment of money (2) in a common enterprise with (3) profits to come solely from the efforts of others. S.E.C. v. W.J. Howey Co., 328 U.S. 293, 298–99 (1946).

[22] *Id.* at 298–300.

[23] For an analysis of the dynamism and complexity of financial markets, and the difficulties this creates for regulators, *see*, for example, Dan Awrey & Kathryn Judge, *Why Financial Regulation Keeps Falling Short* (European Corporate Governance Institute Working Paper No. 494/2020, 2020).

being settled on whether an asset is covered by securities regulations.

There are downsides, however, to regulating new financial assets through enforcement of existing regulations. First and most obvious is that application of existing laws to new products may create uncertainty for market participants in the period of time between when the asset is sold and when its status as a regulated product is clarified. This uncertainty may create opportunities for fraud (e.g., if market participants argue they are not covered by securities laws and, therefore, do not follow certain registration or disclosure requirements meant to reduce fraud) or an impediment to the growth of the potential market (e.g. if market participants assume regulations do or may apply and decline to participate in a market due to regulatory costs or risks of uncertain future regulation).

In addition, sellers of new assets may not necessarily know they were subject to securities regulations until an enforcement action was brought.[24] For instance, as regulators debated the status of cryptocurrencies and considered regulatory approaches, regulated entities argued that the applying securities regulations to these assets retroactively would be unfair.[25] The SEC issued guidance in attempts to reduce uncertainty and make clear certain regulations applied to cryptocurrency assets,[26] but this guidance was non-

[24] *Id.*

[25] *See, e.g.*, Todd Ehret, *SEC Spat with Coinbase Previews Complex Legal Battle Over Crypto*, REUTERS (Sept. 28, 2021), https://www.reuters.com/legal/transactional/sec-spat-with-coinbase-previews-complex-legal-battle-over-crypto-2021-09-28/ [https://perma.cc/W827-FKCM].

[26] *See* Mark Bini & Joanna Howe, *Here's Why the SEC Will Likely Be the Primary Cryptocurrency Cop*, BLOOMBERG LAW (Oct. 17, 2022, 4:00 AM), https://news.bloomberglaw.com/us-law-week/is-the-sec-the-new-crypto-sheriff-in-town [https://perma.cc/5LWD-GW8F]; *see also* Framework for "Investment Contract" Analysis of Digital Assets, SEC (Apr. 3, 2019), https://www.sec.gov/corpfin/framework-investment-contract-analysis-digital-assets [https://perma.cc/E7X4-EQSL].

binding and challenged by regulated entities.[27] Even when undergoing judicial review, courts may split on whether a given financial instrument is a security because courts' determination of securities may be fact-intensive.[28]

Thus, while this approach allows the agency to respond to market innovations more quickly, it comes at the expense of uncertainty and the potential that existing regulations are an improper fit for the new assets the agency hopes to regulate.

B. Developing a New Regulatory Framework: The National Market System

Relative to application of existing regulatory frameworks to new developments, developing new regulatory frameworks in reaction to financial and technological innovations takes considerably more time and may require Congress to expand the agency's authority. The implementation of the National Market System illustrates the benefits and drawbacks of this approach.[29]

1. Overview of The National Market System

In the 1970s, the SEC became concerned that market fragmentation among exchanges[30] harmed investors and led

[27] *See, e.g.*, *In re* Bibox Grp. Holdings Ltd. Sec. Litig., No. 20CV2807 (DLC), at *9 (S.D.N.Y. Apr. 16, 2021) (noting that the SEC framework for digital assets is "merely a non-binding agency interpretation"); *see also* Marine Bank v. Weaver, 455 U.S. 551, 561 (1982) (noting that while the definition of security is "quite broad, Congress, in enacting the securities laws, did not intend to provide a broad federal remedy for all fraud").

[28] Marine Bank, 455 U.S. at 561 n11 (1982) ("A transaction must be analyzed and evaluated on the basis of the content of the instruments in question, the purposes intended to be served, and the factual context as a whole.").

[29] For an overview of the National Market System, see Merritt Fox, Lawrence Glosten & Gabriel Rauterberg, The New Stock Market: Law, Economics, and Policy 28 (2019).

[30] Similar to the definition of "security," the Exchange Act defines "exchanges" and "broker-dealers" broadly. COFFEE ET AL., *supra* note 14, at 640. The SEC has applied the terms to a wide variety of market participants classified as exchanges or broker-dealers. *See, e.g.*, Bd. of Trade of City of Chicago v. S.E.C., 923 F.2d 1270, 1273 (7th Cir. 1991). When an

to inefficiencies.[31] Accordingly, over the course of decades, the SEC proposed a series of regulations to encourage competition and prevent price discrimination in security transactions.[32] These regulations overhauled the regulation of securities exchanges and broker-dealers to create the current regulatory scheme for securities transactions, the National Market System.[33]

These regulations not only took decades to develop,[34] they also required Congress to expand the SEC's regulatory authority.[35] The Securities Act Amendments of 1975 were the initial expansion of authority[36] and came after years of advocacy and analysis by the agency.[37] Additional expansions of authority followed over subsequent decades, ultimately allowing the agency to develop the existing national network among brokers, dealers and exchanges.[38]

Focusing on Regulation ATS,[39] promulgated by the SEC in 1998, illustrates how the SEC tailored new market structure

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interpretation of the terms by the agency is challenged, courts often defer to the SEC, giving the agency flexibility when responding to new technological developments. *Id.*

31 SELIGMAN, *supra* note 10 at 497–501.

32 Important components of the Exchange Act were regulations governing the conduct of broker-dealers and exchanges. The 1934 Act, along with other 1930s statutes, included requirements that exchanges and broker-dealers register with the SEC, COFFEE ET AL., *supra* note 14, at 685, and follow rules established by self-regulatory organizations (SROs) subject to SEC oversight. Paul G. Mahoney & Gabriel Rauterberg, *The Regulation of Trading Markets: A Survey and Evaluation*, *in* SECURITIES MARKET ISSUES FOR THE 21ST CENTURY 221, 230 (Merritt B. Fox et al. eds., 2018).

33 SELIGMAN, *supra* note 10, at 497.

34 *Id.* at 497–501.

35 Id.

36 Pub. L. No. 94-29; see also Mahoney & Rauterberg, *supra* note 32, at 233.

37 The SEC drafted comprehensive reports analyzing existing market structure, arguing for more expansive authority to develop the new rules. Mahoney & Rauterberg, *supra* note 32, at 232.

38 *Id.*

39 17 CFR § 242.301.

regulations and how the agency needed to engage in dialogue with Congress to expand its authority.[40]

2. The National Market System and Regulation ATS

In the mid-1990s, approximately twenty years after first receiving the authority to begin crafting the National Market System, the SEC was concerned that ATSs were not sufficiently integrated into the system. ATSs at the time were generally registered as broker-dealers, meaning they were not required at the time to share the same information as exchanges.[41] The agency had the option to impose exchange registration requirements on ATSs to remedy this information gap, but it was hesitant to do so out of concern these regulations could reduce efficiency in transactions.[42] Thus, the agency saw a flaw in applying then-existing market regulations to a new market development, and a gap in its regulatory capacity to sufficiently address this flaw.

To create regulations tailored to ATSs distinct position, the SEC lobbied Congress for additional authority, which Congress granted as part of the National Securities Markets Improvement Act of 1996.[43] Shortly thereafter, the SEC proposed Regulation ATS to allow ATSs that met certain requirements[44] to choose whether to be regulated as either

[40] A detailed review of the many regulations associated with the National Market System is beyond the scope of this Note. For a comprehensive review of National Market System regulations, see, for example, Mahoney & Rauterberg, *supra* note 32, at 232.

[41] Regulation of Exchanges and Alternative Trading Systems, Securities Exchange Act Release No. 40760, 63 Fed. Reg. 70844, 70845 (1998).

[42] *Id.*

[43] Pub. L. No. 104-290 (codified as amended at 15 U.S.C. § 78k-1(a)(2)). This grant of authority added to authority initially expanded by the 1975 Amendments. *Id.* The 1996 Act gave the SEC the authority to redefine the definition of "exchange" in the Securities Act of 1934 to exempt ATSs. *Id.*

[44] A key requirement was that the system garner "less than five percent of the trading volume in all securities it trades." Regulation of Exchanges and Alternative Trading Systems, Securities Exchange Act Release No. 40760, 63 Fed. Reg. 70844, 70847 (1998).

exchanges or broker-dealers.[45] This regulation, tailored to ATSs, allowed these entities to continue to develop[46] while also ensuring these systems would integrate into the national market.[47] Regulation ATS, therefore, illustrates a tailored approach taken by the SEC to pursue its goals of encouraging innovation and the development of a National Market System.

The implementation of the National Market System, with Regulation ATS as an example, thus demonstrates an iterative approach by the SEC to respond to financial and technological innovations by crafting new, tailored regulatory structures. Unlike the regulation of new instruments as securities, here the SEC lobbied Congress to expand its authority before carefully and deliberately implementing new regulations for developments of new business models. This approach continues, as demonstrated by the most recently proposed National Market System rule proposed in December 2022, reviewed in Section III.B.

3. Benefits and Drawbacks of Developing New Frameworks

Developing new rules allowed the agency to articulate goals for a given market or product's regulation and tailor the regulation to this new market innovation. In the case of the National Market System regulations, the goals related primarily to increasing efficiency in securities transactions, which appear to have been achieved. Since the implementation of these regulations, there has been a significant decrease in spreads and commission rates[48] and

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[45] Regulation of Exchanges and Alternative Trading Systems, Securities Exchange Act Release No. 40760, 63 Fed. Reg. 70844, 70847 (1998).

[46] Mahoney & Rauterberg, *supra* note 32, at 241–43.

[47] Regulation of Exchanges and Alternative Trading Systems, Securities Exchange Act Release No. 40760, 63 Fed. Reg. 70844, 70846-7 (1998).

[48] COFFEE ET AL., *supra* note 14, at 603.

increased competition among trading platforms, as indicated by the significant growth in the number of ATSs.[49]

The implementation of the National Market System also illustrates the main drawback of establishing new rules to respond to market dynamics – the considerable time and analysis required before the rules take effect. Although the National Market System was first proposed in the early 1970s, the SEC took 30 years to develop it into a comprehensive framework in the mid-2000s.[50] The SEC continues to propose alterations to the framework.[51] In addition, unlike with the application of existing regulations to new developments, these rules are not retroactive. Before new rules take effect, the SEC continues to apply the old rules that may imperfectly fit existing market dynamics.[52] The SEC faced criticisms for the delay in issuing new regulations after being granted the authority to do so, to which the SEC responded by echoing concerns raised by market participants that moving too quickly risked destabilizing markets.[53]

In sum, new and tailored regulations allow regulators to articulate clear goals and develop regulations tailored to the specific products at issue. The process, however, takes considerably longer to develop, during which time existing and potentially imperfect regulations govern market participants and transactions.

[49] As with Regulation ATS, these rules often address the unforeseen consequences of prior regulations. For instance, many point to these regulations as facilitating the rise of largely unregulated high-frequency trading, which some argue presents substantial risks in the current system. Mahoney & Rauterberg, *supra* note 32, at 243–46 (reviewing amendments proposed in 2009 responding to these concerns but not adopted).

[50] See, e.g., id.

[51] *Id.*; *see also infra* Section III.B (reviewing the recently proposed rules relating to best execution).

[52] Mahoney & Rauterberg, *supra* note 32, at 276 (reviewing the gradual pace of regulations that covered exchanges and broker-dealers).

[53] *Id.*

C. The SEC's Focus on Market Access

When developing new regulations, the SEC often does so with goals to promote market access and fairness among market participants.

The SEC's approach to enforcing violations of securities fraud in new markets illustrates how SEC regulations encourage market participation. Rule 10b-5[54] prohibits fraud in connection with the purchase or sale of securities[55] and has been broadly interpreted to allow the SEC to prohibit insider trading.[56] Because the provision relates to transactions in "securities," its definition is essential to defining the SEC's authority to prevent fraud in certain financial markets.[57]

In policing fraud, the SEC has enforced this provision as a means to promote confidence in the fairness of markets to encourage participation in the broader securities market.[58] The agency's view is that fraud creates unfairness and distrust, which limits the ability of investors to participate in the broader market because they are unable to rely on public information to sort between good and bad investments.[59] In U.S. v. O'Hagan, the Supreme Court echoed this view, noting that although "informational disparity is inevitable in the securities markets, investors likely would hesitate to venture their capital in a market where trading based on misappropriated nonpublic information is unchecked by law."[60] Thus, an expansive interpretation of "security" allows the agency to police fraud in new markets, encouraging

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[54] 17 C.F.R. § 240.10b-5 (2021).

[55] Exchange Act Release No. 3230, 7 Fed. Reg. 3804 (May 21, 1942).

[56] *See, e.g.*, United States v. O'Hagan, 521 U.S. 642, 659 (1997) (reviewing when a trader may commit insider trading by breaching a duty).

[57] *Id.*

[58] *See, e.g.*, Joel Seligman, *Memories of Bill Cary*, 2 COLUM. BUS. L. REV. 318, 326 (2013). ("Few actions were more likely to reduce confidence (and, ultimately, aggregate investment) in the securities markets than the failure to enforce rules guaranteeing, as far as the law could, that all investors trading on stock exchanges have relatively equal access to material information.").

[59] *See, e.g.*, Bini & Howe, *supra* note 26.

[60] *O'Hagan*, 521 U.S. at 658.

fairness and, in turn, promoting market participation.[61] A similar view was expressed in an early Second Circuit case considering insider trading with the court noting that the core of Rule 10b-5 is "the implementation of the Congressional purpose that all investors should have equal access to the rewards of participation in securities transactions."[62]

Promoting market access for smaller participants was also one of the motivations for establishing the National Market System. At the SEC's urging, Congress has expanded the SEC's authority in order to increase efficiency, competition and fairness in securities markets.[63] Accordingly, the SEC has sought to promote market fairness by removing discrimination against small investors and ensuring that investors are receiving the best execution of trades no matter where orders are routed.[64] The resulting rules include those focused on transparency of transactions, protection of customer orders, disclosure, and assurance of best execution.[65] These reduce barriers to entry, promote fairness and encourage greater market participation.[66]

In sum, the two approaches the agency has taken when considering new regulations for financial market innovations have benefits and drawbacks. When implementing these regulatory approaches, regulators have consistently focused on increasing market participation.

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[61] *See infra* Section II.A.

[62] S.E.C. v. Texas Gulf Sulphur Co., 401 F.2d 833 (2d Cir. 1968).

[63] S. 249, 94th Cong. (1975).

[64] Mahoney & Rauterberg, *supra* note 32, at 241–42 (discussing the enactment of Securities and Exchange Act of 1934 § 11A and 15 U.S.C. § 78k-1(a)(2)).

[65] FOX ET AL., *supra* note 29, at 28–31 (2019).

[66] *See infra* Section II.B.2 (reviewing the impact of the National Market System on transaction costs).

III. HOW FINTECH BROADENS MARKET ACCESS AND COMPLICATES EXISTING REGULATIONS

The growth of fintech raises significant challenges for the SEC concerning its authority to regulate these entities[67] and its focus on promoting market access.[68] At the same time, many fintech entities share the SEC's historic goal of promoting financial market access.[69] This Part reviews regulatory challenges in relation to the growth of cryptocurrencies, online retail broker-dealers, and fintech more broadly, as well as these entities connection to the promotion of market access.

A. Cryptocurrencies

1. Overview of Cryptocurrencies, Their Growth and Decline in Value

Cryptocurrencies encompass a variety of digital assets,[70] each with its own benefits and risks.[71] In general, though,

[67] Existing SEC jurisdiction may not map easily onto new products, as in the case of cryptocurrencies. *See infra* Section II.A.2.

[68] *See infra* Section III.D.

[69] A key method of reducing barriers to entry is to reduce costs of intermediaries in financial markets. Omarova, *supra* note 2, at 745. ("By making financial transactions infinitely faster, easier, and cheaper, fintech also offers new opportunities for financial inclusion and expanded access to financial services. In this sense, new technology seems poised to 'revolutionize' finance not only as a matter of transactional efficiency but also as a matter of political economy."); *see also* PRASAD, *supra* note 1, at 8 ("Recent Fintech innovations—including those underpinning cryptocurrencies such as Bitcoin—herald broader access to the financial system, quicker and more easily verifiable settlement of transactions and payments, and lower transaction costs.").

[70] PERKINS, CONG. RSCH. SERV., *supra* note 6, at 29; *see also* Michael L. D'Ambrosio, *Virtual Currency Regulation: From the Shadows of the Internet to the Floor of Congress*, 19 WAKE FOREST J. BUS. & INTELL. PROP. L. 249, 252 (2019).

[71] Christopher Beam, *From Doge Soldiers to Bitcoinists: A Field Guide to the Crypto Faithful*, BLOOMBERG (Aug. 18, 2021, 12:01 AM), https://www.bloomberg.com/news/features/2021-08-18/from-doge-soldiers-

they are digital assets that are exchanged on digital ledgers known as blockchains.[72] Unlike traditional financial markets, cryptocurrency markets use networks of users and cryptographic protocols rather than intermediaries to verify transactions.[73]

Cryptocurrencies grew significantly in market value between 2016 and early 2022.[74] Essential to this growth was cryptocurrencies' increasing availability to retail investors through dedicated exchanges[75] and online retail broker-dealers.[76] This growth continued despite regulatory

to-bitcoinists-a-field-guide-to-the-crypto-faithful [https://perma.cc/H3FX-NPXB]; *see also* Interview by Max Levchin with Eswar Prasad, WASH. POST (Nov. 18, 2021), https://www.washingtonpost.com/washington-post-live/2021/11/18/transcript-future-money-with-max-levchin-eswar-prasad [https://perma.cc/9PKA-QGFN].

[72] David W. Perkins, Cong. Rsch. Serv., R45427, Cryptocurrency: The Economics of Money and Selected Policy Issues 1 (2020).

[73] *Id.*

[74] One estimate is that the market value of cryptocurrencies crossed approximately $2.7 trillion in November 2021, an increase from less than $10 billion at the beginning of 2016. Global Cryptocurrency Charts: Total Cryptocurrency Market Cap, COINMARKETCAP, https://coinmarketcap.com/charts/ (last visited Nov. 5, 2021) [https://perma.cc/7FYU-XLKU]**.** A 2021 study found that "13 percent of Americans have bought or traded cryptocurrency" over the prior year. Interview by Max Levchin with Eswar Prasad, *supra* note 74.

[75] Vildana Hajric & Michael P. Regan, *FTX's Bankman-Fried Says 'Messy' Crypto Regulations Need Fixes*, BLOOMBERG (Dec. 11, 2021) https://www.bloomberg.com/news/articles/2021-12-11/ftx-s-bankman-fried-says-messy-crypto-regulations-need-fixes [https://perma.cc/GS3C-T7MN] (noting that according to Sam Bankman-Fried, founder and CEO of cryptocurrency exchange FTX, there were "thousands" of exchanges to buy cryptocurrencies, and "only a couple that matter in terms of volume").

[76] For years following the creation of Bitcoin, trading in cryptocurrencies required some degree of technological expertise to access this market and generally lacked liquidity, increasing transaction costs. Platforms like Coinbase have reduced this barrier to entry and made trading in Cryptocurrency mainstream. *See generally* Charlie Wells, *How to Buy Bitcoin: A Guide to Investing in the Cryptocurrency*, BLOOMBERG (Dec. 2, 2020), https://www.bloomberg.com/news/articles/2020-12-02/how-to-buy-bitcoin-btc-beginners-guide-to-investing-in-the-cryptocurrency?srnd=cryptocurrencies [https://perma.cc/H34P-ZKHK].

uncertainty as to their status as securities, banks or other regulated products or entities.[77]

Proponents argued that widespread adoption of these assets had the potential to greatly reduce transaction costs and frictions in a variety of financial markets and services.[78] However, critics raised doubts about the products' utility and the potential for fraud, especially given the uncertainty around existing regulatory requirements.[79]

Eventually, these assets' growth in value, increased adoption among market participants, and integration into the mainstream financial system drew increased scrutiny from regulators.[80] Once the value of cryptocurrencies fell beginning in early 2022 and prominent cryptocurrency products and exchanges collapsed, this regulatory scrutiny increased significantly.[81] Some criticized regulators for failing to do

[77] *See infra* Section III.A.2.

[78] PRASAD, *supra* note 1, at 8–9, 18–20.

[79] *See*, *e.g.*, Eswar Prasad, *Five Myths About Cryptocurrency,* BROOKINGS (May 24, 2021) https://www.brookings.edu/opinions/five-myths-about-cryptocurrency/ [https://perma.cc/FTH4-RDQ3] (arguing that Bitcoin is not efficient for transactions and is essentially just a speculative asset); Sheelah Kolhatkar, *The Challenges of Regulating Cryptocurrency*, NEW YORKER (Oct. 6, 2021), https://www.newyorker.com/business/currency/the-challenges-of-regulating-cryptocurrency [https://perma.cc/BDQ5-LXJR].

[80] *See e.g.*, Emily Flitter, *Banks Tried to Kill Crypto and Failed. Now They're Embracing It (Slowly)*, N.Y. TIMES (Nov. 1, 2021), https://www.nytimes.com/2021/11/01/business/banks-crypto-bitcoin.html [https://perma.cc/VQ9R-NKS5]; Matthew Leising, *Here's How to Tell the Difference Between Bitcoin and Ethereum*, BLOOMBERG (May 9, 2021), https://www.bloomberg.com/news/articles/2021-05-09/bitcoin-and-ethereum-how-are-they-different-quicktake [https://perma.cc/XAK3-4MG6].

[81] *See*, *e.g.*, Alice Tchernookova, *FTX Collapse Fans Flames of Crypto Regulation Debate,* IFLR (Nov. 16, 2022), https://www.iflr.com/article/2aw8et4m1c32ufz5rjhts/ftx-collapse-fans-flames-of-crypto-regulation-debate [https://perma.cc/W9RG-HYZ7]; Peter Woriskey & Tory Newmyer, *FTX Crpyto Implosion Focuses Scrutiny on SEC Chief Gensler*, WASH. POST (Dec. 14, 2022) https://www.washingtonpost.com/technology/2022/12/14/sec-gensler-crypto-ftx/ [https://perma.cc/5EMH-XXV2].

more to ensure the safety of customer assets prior to the failure of prominent products and exchanges.[82]

2. Regulation as Securities, Exchanges and Banks

The SEC has been a central regulator of cryptocurrencies.[83] The SEC was among the earliest regulators to claim jurisdiction over cryptocurrencies with Chairman Gensler stating that as markets and technology change, the SEC's "rules have to change along with them."[84] But even the agency did not claim that all cryptocurrencies were securities.[85] After years stating it had authority over these assets, the agency has more recently brought significant enforcement actions against participants in the cryptocurrency markets.[86]

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[82] *See* Howard Fischer, *No One Stopped the Crypto Meltdown. Are Government Enforcers to Blame?,* BARRON'S (Dec. 20, 2022), https://www.barrons.com/articles/crypto-meltdown-sec-gensler-ftx-51671557238 [https://perma.cc/FHF3-8A6M].

[83] *See*, *e.g.*, David Yaffe-Bellany, *Inside a Crypto Nemesis' Campaign to Rein In the Industry*, N.Y. TIMES (Nov. 21, 2022), https://www.nytimes.com/2022/11/21/technology/gary-gensler-crypto-sec.html [https://perma.cc/YA7B-5B6U].

[84] David Gura, *Why Wall Street's Top Cop Thinks It's Time to Get Tough*, NPR (Dec. 19, 2021), https://www.npr.org/2021/12/19/1063573184/wall-streets-sec-gary-gensler-cryptocurrencies-bitcoin-spac [https://perma.cc/R97M-59ZR]. In this period, the SEC had taken a number of enforcement actions against cryptocurrency sellers and issuers. Simona Mola, *SEC Cryptocurrency Enforcement: Q3 2021 Update*, CORNERSTONE RESEARCH (2021), https://www.cornerstone.com/Publications/Reports/SEC-Cryptocurrency-Enforcement-Q3-2021-Update, [https://perma.cc/F9Q5-84ZP].

[85] The agency noted that the analysis to determine whether cryptocurrencies are assets is fact-intensive and has published guidance to aid courts and private parties in this analysis. *SEC, Framework for Investment Contract Analysis of Digital Assets (2019)*, 132 HARV. L. REV. 2418 (2019).

[86] *See*, *e.g.*, Press Release, SEC Charges Samuel Bankman-Fried with Defrauding Investors in Crypto Asset Trading Platform FTX (Dec. 13, 2022), https://www.sec.gov/news/press-release/2022-219 [https://perma.cc/DB3X-Q9ER]; Press Release, SEC Charges Genesis and

Despite claims of authority, however, classification difficulties continued due to the wide variety of cryptocurrencies as well as conflicting interpretations of the risks and purposes of these new financial products fit into existing regulatory schemes. Regulators and scholars have classified cryptocurrencies under a number of regulatory umbrellas, including those designed for securities,[87] commodities,[88] or banks.[89] Even when considering the same cryptocurrency, regulators came to different conclusions.[90]

Gemini for the Unregistered Offer and Sale of Crypto Asset Securities through the Gemini Earn Lending Program (Jan. 12, 2023), https://www.sec.gov/news/press-release/2023-7 [https://perma.cc/QV39-99RE].

[87] Todd Ehret, *US Crypto Framework Begins to Evolve: A Special Report Update*, REUTERS (Oct. 22, 2021), https://www.reuters.com/legal/transactional/us-crypto-framework-begins-evolve-special-report-update-2021-10-22/ [https://perma.cc/D8QU-Q4YD].

[88] Ephrat Livni, *Biden and Trump S.E.C. Chiefs Trade Tips on How to Regulate Crypto*, N.Y. TIMES (Dec. 2, 2021), https://www.nytimes.com/2021/12/02/business/dealbook/crypto-trump-biden.html [https://perma.cc/J7XT-4U3T] ("The original Bitcoin, the original cryptocurrency . . . is considered a commodity in the United States because there is no single individual or entity minting the tokens."). The CFTC interpreted commodities to include cryptocurrencies. *See, e.g.*, Commodity Futures Trading Comm'n v. McDonnell, 287 F. Supp. 3d 213, 223–24 (E.D.N.Y. 2018); Digital Assets Primer, CFTC 24 (December 2020), https://www.cftc.gov/digitalassets/index.htm [https://perma.cc/G2YJ-PMHE].

[89] Some regulators and scholars argue that stablecoin-issuers are essentially banks given their products are essentially deposits under the Glass-Steagall Act. Howell E. Jackson & Morgan Ricks, *Locating Stablecoins within the Regulatory Perimeter*, HARV. L. SCH. FORUM ON CORP. GOVERNANCE (Aug. 5, 2021), https://corpgov.law.harvard.edu/2021/08/05/locating-stablecoins-within-the-regulatory-perimeter/ [https://perma.cc/T2JC-KXCX]; Michael P. Regan & Jesse Hamilton, *Regulators Want to Push Crypto's Shadow Bankers Into the Light*, BLOOMBERG (Nov. 2, 2021), https://www.bloomberg.com/news/articles/2021-11-02/regulators-want-to-push-crypto-s-shadow-bankers-into-the-light?srnd=cryptocurrencies [https://perma.cc/G9X3-TQCK].

[90] For instance, Bitcoin has been classified as both a commodity or a security. Tom Wilson*, Is It a Currency? A Commodity? Bitcoin Has an Identity Crisis*, REUTERS (Mar. 3, 2020, 2:08AM),

Some cryptocurrency market participants haven taken steps to reduce regulatory uncertainty. Most prominently, Coinbase, among the most prominent cryptocurrency exchanges, used a risk-based scoring model to determine whether cryptocurrencies are securities.[91] However, this model was based on its own interpretations of the law in the absence of clear guidance on whether these assets were "securities."[92] Courts also came to different conclusions about these assets' status as securities.[93]

The debate about regulation of "stablecoins" illustrates part of the debate and uncertainty around cryptocurrencies' regulation. Unlike cryptocurrencies like Bitcoin, stablecoins may be backed by traditional financial assets, giving them a theoretically more "stable" value.[94] In theory, the coin's value is worth the amount of reserves backing up its value rather

https://www.reuters.com/article/us-crypto-currencies/is-it-a-currency-a-commodity-bitcoin-has-an-identity-crisis-idUSKBN20Q0LK [https://perma.cc/S93M-WFWD]. Stablecoins have been classified as both a security and a deposit-like asset. Jesse Hamilton, *Treasury Is Pushing to Impose Bank-Like Rules on Stablecoins*, BLOOMBERG (Oct. 1, 2021, 2:19 PM) https://www.bloomberg.com/news/articles/2021-10-01/treasury-is-pushing-to-impose-bank-like-rules-on-stablecoins [https://perma.cc/F82N-RGCD].

[91] Coinbase Global, Inc., Prospectus (Form S-1 Registration Statement) 29-30, 150 (Feb. 25, 2021).

[92] Nikhilesh De, *Coinbase-Led Crypto Ratings Council Draws Skepticism From Legal Experts*, COINDESK (Oct. 3, 2019, 10:40 AM), https://www.coindesk.com/markets/2019/10/03/coinbase-led-crypto-ratings-council-draws-skepticism-from-legal-experts/ [https://perma.cc/M4MX-4NYT].

[93] *See, e.g.*, *Federal Jury Finds Cryptocurrency Products Not Securities in Landmark Verdict*, (Nov. 18, 2021), https://www.paulweiss.com/practices/litigation/securities-litigation/publications/federal-jury-finds-cryptocurrency-products-not-securities-in-landmark-verdict?id=41746 [https://perma.cc/Z5MJ-2ZFP] (finding that products were not securities under the Connecticut Uniform Securities Act).

[94] There are a range of stablecoins backed by different assets. Some are less "safe" than others based on which assets back their stable value, as demonstrated by the failure of Terra in early 2022. Muyao Shen, *How $60 Billion in Terra Coins Went Up in Algorithmic Smoke*, BLOOMBERG (May 21, 2022), https://www.bloomberg.com/graphics/2022-crypto-luna-terra-stablecoin-explainer/ [https://perma.cc/F29U-G9QS].

than prices determined by market supply and demand, with associated risks.[95] These products have characteristics of a number of different types of financial assets. The President's Working Group on Financial Markets noted that "stablecoins, or certain parts of stablecoin arrangements, may be securities, commodities and/or derivatives."[96] Others argued that stablecoins were essentially bank deposits, and stablecoin issuers should be regulated as banks.[97]

In sum, cryptocurrencies greaterly increased in value despite continued regulatory uncertainty about their status as securities. While enforcement actions against these cryptocurrencies have increased,[98] the debate about their proper classification continues.

B. Online Retail Broker-Dealers

1. Online Retail Broker-Dealers and Expanding

[95] Neha Narula, *The Technology Underlying Stablecoins*, NEHA'S WRITINGS (Sept. 23, 2021), https://nehanarula.org/2021/09/23/stablecoins.html [https://perma.cc/JF47-K8TG] (reviewing the technology as well as the risks related to stablecoins).

[96] Chair Gary Gensler, Statement on President's Working Group Report on Stablecoins, SEC (Nov. 1, 2021) https://www.sec.gov/news/statement/gensler-statement-presidents-working-group-report-stablecoins-110121 [https://perma.cc/7NGD-PWGB].

[97] *See*, *e.g.*, Arthur Wilmarth, Jr., *It's Time to Regulate Stablecoins as Deposits and Require Their Issuers to Be FDIC-Insured Banks*, CLS BLUE SKY BLOG (Jan. 17, 2002), https://clsbluesky.law.columbia.edu/2022/01/17/its-time-to-regulate-stablecoins-as-deposits-and-require-their-issuers-to-be-fdic-insured-banks/ [https://perma.cc/63TP-GJ6G]. When TerraUSD, among the most prominent stablecoins, collapsed following what looked to many like a bank run in the Summer of 2022, the calls to apply banking regulations increased. *See* Shen, *supra* note 94.

[98] *See, e.g.*, Dave Michaels, *SEC Faces Calls to Boost Crypto-Exchange Enforcement After FTX Collapse,* WALL ST. J. (Dec. 8, 2022), https://www.wsj.com/articles/sec-faces-calls-to-boost-crypto-exchange-enforcement-after-ftx-collapse-11670474070 [https://perma.cc/H2X7-2EPF].

Market Access

Online retail broker-dealers have existed since the 1990s, but these entities' business models have changed significantly in the past decade.[99] These developments have re-shaped how retail investors access financial markets.

Robinhood, founded in 2013, has been essential to these changes.[100] Prior to Robinhood, the established business model for online retail broker-dealers was to generate revenue through two primary methods: charging commissions on trades and payment-for-order flow (PFOF).[101] Robinhood upended this model by eliminating commission fees, choosing to generate almost all of its revenues from PFOF.[102] The mechanics of PFOF are complex,[103] but essentially involve routing trades from a broker-dealer's clients to high-frequency traders (HFTs),[104] also called "internalizers," in exchange for

[99] Fed. Rsrv. Sys., *Financial Stability Report* 18 (Nov. 2021), https://www.federalreserve.gov/publications/files/financial-stability-report-20211108.pdf [https://perma.cc/JMA5-X5NP].

[100] For instance, Charles Schwab in October 2019 became the first large traditional broker to announce it was eliminating broker-fees in reaction to competition from newer institutions such as Robinhood. John Gittelsohn & Annie Massa, *Schwab Triggers Online-Broker Bloodbath as Price War Deepens*, BLOOMBERG (October 1, 2019), https://www.bloomberg.com/news/articles/2019-10-01/charles-schwab-to-end-online-stock-etf-and-options-commissions?sref=mNrqRJq9?srnd=storythread-QHIGSET1UM0W01 [https://perma.cc/PJH9-J226]; Fed. Rsrv., *supra* note 107 at 19.

[101] Gary Shorter, Cong. Rsch. Serv., CRS In Focus: IF11800, Broker-Dealers and Payment for Order Flow (2021).

[102] Nathaniel Popper, *Robinhood Has Lured Young Traders, Sometimes With Devastating Results*, N.Y. TIMES (July 8, 2020), https://www.nytimes.com/2020/07/08/technology/robinhood-risky-trading.html [https://perma.cc/RC5K-8A4N].

[103] Matt Levine, *People Are Worried About Payment for Order Flow*, BLOOMBERG (February 5, 2021) (providing a detailed explanation about the economics of PFOF), https://www.bloomberg.com/opinion/articles/2021-02-05/robinhood-gamestop-saga-pressures-payment-for-order-flow [https://perma.cc/UWU5-3Z5G].

[104] The SEC has noted that "high-frequency traders" are hard to define but generally include firms that, among other things use "extraordinarily high-speed and sophisticated computer programs for generating, routing,

payments for this "order flow."[105] The internalizer profits from the spread when connecting buyers and sellers (the higher price the internalizer receives from a buyer less the lower price the internalizer pays for the security from the seller), less the payments to the broker-dealer.[106] For broker-dealers to satisfy their duty of best execution, the internalizer must provide pricing better than prices quoted on an exchange.[107] Thus, the savings the HFT provides relative to an exchange is split between the HFT, Robinhood and the investor.[108] A large portion of equity trading now occurs through internalizersg.[109] Although the investors' trades are not "free," given costs paid to the broker-dealers and the internalizers, the transaction cost appears "free" given the elimination of commissions.[110]

In addition to popularizing "commission-free" trading, the company also changed the model for broker-dealers by introducing fractional shares, "gamification,"[111] and

and executing orders." Concept Release on Equity Market Structure, Exchange Act Release No. 34-61358; File No. S7-02-10, 45 (Jan. 14, 2010). The types of strategies employed by HFTs varies considerably. *Id.* at 46.

105 Levine, *supra* note 103.

106 *Id.*

107 *Id.*

108 *Id.*

109 Matt Levine, *Opinion: The SEC Wants More Stock Auctions*, BLOOMBERG (Dec. 15, 2022) https://www.bloomberg.com/opinion/articles/2022-12-15/the-sec-wants-more-stock-auctions [https://perma.cc/SLE6-FERH]]

110 Id.

111 Gamification refers to the design of the app encouraging investment by making trading easier and more 'fun' and communal – making it a more appealing customer experience and encouraging trading. Misyrlena Egkolfopoulou, Annie Massa & Anders Melin, *How Robinhood Made Trading Easy – and Maybe Even Too Hard to Resist*, BLOOMBERG (Apr. 21, 2021), https://www.bloomberg.com/features/2021-robinhood-stock-trading-design/ [https://perma.cc/3WKX-WW52]; Nick Gallo, *Robinhood and the Gamification of Investing*, FINMASTERS (Jun. 29, 2022), https://finmasters.com/gamification-of-investing/#gref [https://perma.cc/99ZU-UV65]

community-building features[112] which led to increased retail market participation.[113]

2. Regulation as Broker-Dealers

Relative to the regulation of cryptocurrencies, there is significantly less uncertainty around the regulation of online retail broker-dealers. Online retail brokers are accepted as broker-dealers under the Exchange Act.[114] There is debate, however, about whether and how changes to the broker-dealers' model should impact new market structure regulations.[115]

As PFOF has become more central to online retail brokers' business models, criticisms of the practice increased.[116] Some argue that these payments create a conflict of interest[117] where broker-dealers may display a preference for the large institution internalizing the trades to the detriment of retail

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112 Annie Massa & Tracy Alloway, *Robinhood, Meme Stocks and Investing as a Game: Quicktake*, BLOOMBERG LAW (July 16, 2021), https://www.bloomberglaw.com/product/blaw/document/QWALIRT0G1KZ?criteria_id=26c0b4f61119e8047271dedaf01bfc90&searchGuid=3f68b00a-ec%E2%80%A6 [https://perma.cc/U5A5-MYLQ].

113 *See* Alexander Osipovich, *Individual-Investor Boom Reshapes U.S. Stock Market*, WALL ST. J. (Aug. 31, 2020) https://www.wsj.com/articles/individual-investor-boom-reshapes-u-s-stock-market-11598866200 [https://perma.cc/7N7E-BF5H].

114 Siqi Wang, *Consumers Beware: How Are Your Favorite "Free" Investment Apps Regulated?*, 19 DUKE L. & TECH. REV. 43, 48 (2021); *see also* Robinhood Prospectus, *supra* note 6, at 7 (describing the Robinhood platform and noting the use of subsidiaries which are licensed broker-dealers); *see also In re* Robinhood Financial, LLC, Exchange Act Release No. 92591, File No. 3-20171 (Aug. 6, 2021)(describing Robinhood as "one of the largest broker-dealers").

115 Ben Bain, *SEC Chairman Proposes Review of U.S. Stock Trading Rules*, BLOOMBERG LAW (June 9, 2021), https://www.bloomberglaw.com/document/QUGA6LDWLU6G [https://perma.cc/SC6B-94E4].

116 Levine, *supra* note 109.

117 This same concern preceded Robinhood in suits against other online brokerage firms that utilized payment for order flow. *See, e.g.*, Rayner v. E*TRADE Fin. Corp., 248 F. Supp. 3d 497, 505 (S.D.N.Y. 2017), aff'd, 899 F.3d 117 (2d Cir. 2018).

customers.[118] Others disagree, arguing that customers ultimately benefit from PFOF through increased efficiency.[119]

The SEC responded to this debate in December 2022 by proposing a new Best Execution Rule.[120] The proposed rule is the latest update to the National Market System Regulations, reviewed in Section II.B, and would dramatically alter online broker dealers' use of PFOF, an area with little current regulation apart from disclosure requirements.[121] The goal, as with other National Market System regulations, is to promote fairness and trust in markets through encouraging competition and transparency of customer transactions.[122] A key proposed change would be to require auctions among internalizers for customer orders which could limit the payments for such orders to dealers such as Robinhood.[123] This would aim to remove the potential for a conflict of interest and less-than optimal execution for customer orders.[124] The proposed rule has been criticized by internalizers who focus on potential harms the regulation may have on liquidity and retail investors.[125]

In sum, the change in online retail broker-dealers' business models has led to calls, and ultimately a proposal, for new

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118 *Rayner*, 248 F. Supp. 3d at 505.

119 *The Perils of Payment for Order Flow*, 107 HARV. L. REV. 1675, 1677–78 (1994).

120 *See* Regulation Best Execution, 88 Fed. Reg. 5440 (proposed Jan. 27, 2023) (to be codified at 17 C.F.R. pt. 240 and 17 C.F.R. pt. 242) ; *see also* Press Release, SEC, SEC Proposes Regulation Best Execution (Dec. 14, 2022), https://www.sec.gov/news/press-release/2022-226 [https://perma.cc/G74W-KCGR]; Lydia Beyoud & Katherine Doherty, *Wall Street Stock Trading Set for Overhaul in New SEC Plan*, BLOOMBERG (Dec. 14, 2022) https://www.bloomberg.com/news/articles/2022-12-14/wall-street-stock-trading-set-for-major-overhaul-in-new-sec-plan [https://perma.cc/ECN5-C6KZ]; Matt Levine, *Opinion: The SEC Wants More Stock Auctions*, BLOOMBERG (Dec. 15, 2022) https://www.bloomberg.com/opinion/articles/2022-12-15/the-sec-wants-more-stock-auctions [https://perma.cc/SLE6-FERH].

121 SHORTER, CONG. RSCH. SERV., *supra* note 101.

122 *See* 17 CFR Parts 240, 242.

123 Beyoud, *supra* note 120, at 1.

124 *See* 17 CFR Parts 240, 242.

125 Beyoud, *supra* note 120.

regulations that would significantly alter the existing model of these entities.[126] Unlike with cryptocurrencies, here, there is little uncertainty about these entities regulatory structure. Instead, regulators have continued to apply existing regulations to these entities while hoping to alter the framework to improve conditions for retail investors.

C. Challenges When Regulating Fintech

Fintech presents new challenges for financial regulators. While some challenges are inherent in the regulation of financial markets, others are unique or exacerbated by fintech's pace of innovation and idiosyncratic risks. Three of these unique challenges are particularly relevant to the regulation of cryptocurrencies and online retail broker-dealers.

First, fintech increases complexity of financial markets by requiring regulators to understand both financial and non-financial risks of fintech products or entities. Professors Dan Awrey and Kathryn Judge have reviewed the inherent difficulty in regulating financial markets given their dynamism and complexity, making it difficult to collect information necessary to inform regulations.[127] Fintech exacerbates these problems by increasing dynamism through technological innovations, and by adding technological complexities to financial complexities.[128] For instance, stablecoins combine technological concerns related to privacy and infrastructure with financial stability risks relating to

[126] *See, e.g.*, Bain, *supra* note 115; Andrew Ross Sorkin et al., *The S.E.C. Weighs In on Meme-Stock Mania, Dealbook Newsletter*, N.Y. TIMES (Nov. 3, 2021), https://www.nytimes.com/2021/10/19/business/dealbook/gamestop-meme-stocks-report.html [https://perma.cc/4HGD-34GT].

[127] Dan Awrey & Kathryn Judge, *Why Financial Regulation Keeps Falling Short* (European Corp. Governance Inst. Working Paper No. 494/2020, 2020), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3530056 [https://perma.cc/6MCV-JX6D].

[128] Saule Omarova, *Technology v. Technocracy: Fintech as a Regulatory Challenge*, 107 (Cornell L. Sch. Research paper No. 20-14, July 2020).

liquidity and solvency.[129] The need to be attentive to both financial and technological concerns requires expertise in a variety of areas, not solely financial markets and products.

Second, interested parties may play an outsized role in shaping new regulations for innovative products. Historically, when regulators propose new frameworks, private entities have raised concerns that new regulations could damage financial markets by creating uncertainty,[130] de-stabilizing markets,[131] being ill-suited to new products, [132] or preventing innovation.[133] Private influence shaping regulations has existed since the beginning of modern financial regulation with private entities attempting to influence Congress prior to its passage of the Securities Act and the Exchange Act in the 1930s.[134] A similar dynamic occurred during the rise of cryptocurrencies, with interested parties attempting to influence regulatory actions[135] and promoting approaches

[129] Neha Narula, *The Technology Underlying Stablecoins*, NEHA'S WRITINGS, (Sept. 23, 2021), https://nehanarula.org/2021/09/23/stablecoins.html [https://perma.cc/FS4N-QZFS].

[130] SELIGMAN, supra note 10, at 501.

[131] *Id.*

[132] See COFFEE ET AL., *supra* note 14, at 325–26 (reviewing that market participants pushed back against a broad interpretation of 'security' when there was consideration that certificates of deposit fit the definition in the 1980s).

[133] Prior to the 1975 amendments giving authority to the SEC to create the National Market System was, exchanges argued for separate proposals more beneficial to existing players. SELIGMAN, *supra* note 10, at 497–98.

[134] Leaders from the NYSE, the country's largest exchange, argued strongly against any regulation, stressing the benefits the exchange provided to society and arguing that regulation would negatively impact markets. SELIGMAN, *supra* note 10, at 73, 75, 88. Although there were other exchanges around the country, the NYSE was referred to as 'the Exchange" and accounted for as much as seventy-five percent of securities transactions by 1932. *Id.* at 73. The Acts ultimately passed, but lobbying led to political compromises and weakening of certain provisions. *Id.* at 100 (reviewing the compromise bill that ultimately passed).

[135] *Id.*

favorable to the industry.[136] Given the difficulty in understanding new fintech products and developments, large market participants may play an outsize role in explaining these innovations to regulators, ultimately influencing new regulatory structures.

Third, agency authority to regulate the new developments may be uncertain. Since the creation of the SEC, courts have been willing to enforce limits on the agency's authority.[137] Fintech encompasses new products that may not cleanly fit existing categorizations agencies regulate and courts may find that the SEC requires new authorization from Congress to regulate these new products or services.[138] This creates a scenario where the SEC attempts to assert its authority over a given innovation by issuing guidance and bringing enforcement actions against some market participants, but doubts persist until courts clarify the perimeter of the agency's authority. This dynamic occurred most clearly in the SEC's attempts to assert jurisdiction over cryptocurrencies and cryptocurrency entities.[139] Ultimately, this uncertain authority may prevent the agency from being able to effectively regulate markets with new products or services.

D. The Risks of Increased Market Access

Fintech has eliminated many barriers of entry to financial markets, enabling what proponents often refer to as "democratized finance." A fully accessible financial market, however, may introduce idiosyncratic risks to retail investors who are not on a level playing field with larger institutional investors.

Barriers to entry have often prevented retail investors from competing directly with institutional investors.

[136] Eric Lipton, Daisuke Wakabayashi & Ephrat Livni, *Big Hires, Big Money and a D.C. Blitz: A Bold Plan to Dominate Crypto*, N.Y. TIMES (Oct. 29, 2021), https://www.nytimes.com/2021/10/29/us/politics/andreessen-horowitz-lobbying-cryptocurrency.html [https://perma.cc/PN9Q-DTH9].

[137] *See supra* Section II.A.

[138] *Id.*

[139] *Supra* Section III.A.2.

Investors face transaction costs including from compliance with market regulations and intermediation costs (costs to find counterparties through market makers).[140] These costs decrease with scale so larger institutions have traditionally been better able to bear such costs than retail investors. Larger investors may also avoid or reduce such costs through regulatory arbitrage.[141] In response, smaller investors historically reacted to this dynamic by pooling assets with institutional investors to share in some cost savings.[142] Reductions of barriers to market access, however, have led retail investors in recent years to increase their direct investments.[143]

The reduction of barriers to access has a clear benefit of reduced costs for retail investors but may also present risks to which regulators may respond. Retail investors are often considered "uninformed" relative to large institutional investors[144] and react differently to market events.[145] Institutional investors have expertise and access to sophisticated technology to evaluate risk and market opportunities that retail investors lack. Online retail broker-dealers generate revenue through PFOF in part because it directs trades from "uninformed" investors to larger institutions that make markets in these financial assets.[146]

[140] *See, e.g.*, FOX & MERRILL, *supra* note 29 at 33–35; Chris Brummer & Yesha Yadav, *Fintech and the Innovation Trilemma*, GEO. L.J. 235, 242 (2019).

[141] Victor Fleischer, *Regulatory Arbitrage*, 89 TEX. L. REV. 227, 229 (2010).

[142] *What Percentage of Americans Own Stock?,* USA FACTS (Mar. 9, 2021), https://usafacts.org/articles/what-percentage-of-americans-own-stock/ [https://perma.cc/Q5VD-XBPK].

[143] Michael S. Barr, Howell E. Jackson & Margaret E. Tahyar, Financial Regulation: Law and Policy 581 (3d ed. 2021).

[144] Mahoney & Rauterberg, *supra* note 32, at 259.

[145] *See, e.g.*, Bailey Lipschultz, *Retail Traders Stick to Dip-Buying with Record Purchases*, BLOOMBERG (Dec. 1, 2021), https://www.bloomberg.com/news/articles/2021-12-01/retail-traders-stick-to-dip-buying-ways-with-record-purchases [https://perma.cc/5XZV-WTYC].

[146] FOX ET AL., *supra* note 29, at 98–99; Matt Levine, *People Are Worried About Payment for Order Flow*, Money Stuff (Blog), BLOOMBERG (Feb. 5,

Thus, asymmetries in access to information and expertise lead to different risks and opportunities for retail investors in comparison to institutions.

As barriers to invest in financial markets approach zero, uninformed investors will face little tension to enter markets where they may be at a structural disadvantage relative to larger institutions. New and complex markets with large fluctuations in value – such as cryptocurrency markets – exacerbate the different outcomes among informed and uninformed traders. This could lead to unfairness and losses for retail investors unaware of market risks. In response, the SEC may consider whether there are circumstances warranting limitations on the ability of certain classes of investors (such as subsets of retail investors) to directly access certain markets. Considerations of limiting market access may occur alongside other considerations of how best to regulate financial market innovations.

IV. APPROACHES TO REGULATING MARKET INNOVATIONS AND LIMITING MARKET ACCESS

Following from the historical and contemporary approaches to the SEC's regulation of new financial market developments, this Part proposes two frameworks for understanding the regulation of new financial market innovations, focusing in particular, on fintech products aiming to "democratize" financial markets. First, this Part reviews a framework to understand when the SEC may regulate new market developments under existing regulatory structures. Second, this Part reviews a framework for how the agency may approach limiting market access in light of the continued democratization of financial markets.

A. Whether and When to Apply Existing Regulations

2021), https://www.bloomberg.com/opinion/articles/2021-02-05/robinhood-gamestop-saga-pressures-payment-for-order-flow [https://perma.cc/YC4M-BRL9] (providing a detailed explanation about the economics of PFOF).

to New Market Developments

When an agency has the authority to apply existing regulations to new market developments, it has a choice.[147] The agency may apply existing regulations, such as when the SEC applies security regulations to new financial instruments,[148] or develop a new framework tailored to new market developments, such as when the SEC developed the National Market System in reaction to what it saw as flaws in existing market structure.[149]

This Section reviews the two instances when the SEC applies existing regulations to new market innovations: (1) when (i) the new product (or service)'s risks and purposes are reasonably related to risks and purposes of services or products already covered by the existing regulation and (ii) there is not significant uncertainty concerning the assets' classification, or (2) in the interim between a product's widespread adoption or transformation of the current market and the implementation of new regulations, when an imperfect regulatory scheme provides greater benefits relative to no regulatory scheme.

1. Applying Existing Regulations: Reasonably Related Test

Agencies apply existing regulations to new developments when the fintech product or service under consideration is reasonably related to products or services encompassed by existing regulations. This is a fact-intensive analysis that considers (1) the risks posed by the relevant financial product

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147 Note that in any analysis, the agency must have authority to apply existing regulations, i.e. the new market developments fitting the regulations' definition is a prerequisite to applying them. Whether this authority exists depends on the specific regulation and product or service at issue. However, uncertainty about regulatory authority is part of the consideration of whether applying existing regulations (or at least attempting to apply existing regulations) is warranted, as reviewed in this Part.

148 *See infra* Section II.A.

149 *See infra* Section II.B.

or service and (2) the purpose of the relevant financial product or service. The analysis must consider both the risk and purposes of the financial product to be regulated as well as the financial products covered by existing regulations.

The years-long debates concerning the regulation of cryptocurrencies illustrate this approach and its challenges. When the SEC began to assert its authority over cryptocurrencies, these assets were generally acquired through exchanges or broker-dealers, similar to securities.[150] As assets purchased through exchanges or broker-dealers, there is a similar risk of fraud in cryptocurrency markets as in other securities markets.[151] The purpose of cryptocurrencies was also similar to assets regulated as securities because cryptocurrencies generally served as speculative investments. That the SEC chose to assert its jurisdiction over these assets as securities indicates that although not crafted for cryptocurrencies, the securities regulation framework was warranted. Essentially, these assets were reasonably related to instruments regulated under the securities law framework.

2. Applying Existing Regulations: Market Uncertainty Test

This analysis is complicated, however, by the uncertainty in the market created by cryptocurrency products' different features.

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[150] Vildana Hajric & Michael P. Regan, *FTX's Bankman-Fried Says 'Messy' Crypto Regulations Need Fixes*, BLOOMBERG (Dec. 11, 2021), https://www.bloomberg.com/news/articles/2021-12-11/ftx-s-bankman-fried-says-messy-crypto-regulations-need-fixes [https://perma.cc/7DZL-VALU] (reviewing the role of exchanges in the current cryptocurrency market). *See also* Coinbase, Prospectus (Form S-1 Registration Statement) 148 (Feb. 25, 2021).

[151] This is indicated by the number of enforcement actions against sellers or promoters of cryptocurrencies. *See, e.g.*, Mola, *supra* note 84; Chris Dolmetsch, *Man Charged in $4.5 Billion Crypto Scam Denied Bail Judge*, BLOOMBERG (Feb. 14, 2022), https://www.bloomberg.com/news/articles/2022-02-14/man-charged-in-4-5-billion-crypto-scam-denied-bail-by-judge, [https://perma.cc/M4B8-AWQ6].

There are a large number of cryptocurrencies, each with different characteristics,[152] making categorization of cryptocurrencies as a class difficult.[153] For example, stablecoins present different risks than cryptocurrencies whose prices fluctuate based on supply and demand.[154] Cryptocurrencies issued to raise money in "initial coin offerings" differ in both purpose and risks from those like Bitcoin which are created based on a set protocol and are more commodity-like.[155] Cryptocurrencies that use "proof of stake" as opposed to "proof of work" present different technological, privacy and fraud risks.[156] Thus, labelling one cryptocurrency a "security" may not say much about whether other cryptocurrencies such as stablecoins should be labeled as such.[157]

This regulatory uncertainty caused by the large number of different assets has continued despite the SEC bringing enforcement actions against certain cyptocurrency assets and issuing guidance.[158] Successful enforcement actions relating to one cryptocurrency does not mean that all cryptocurrencies are securities.[159] While courts or the SEC may classify one

152 *See infra* Section III.A.1.

153 *Id.*

154 Stablecoins, unlike Bitcoin, are backed by financial assets to create a relatively stable price. Christian Catlini & Jay Massari, *Stablecoins and the Future of Money*, HARV. BUS. REV. (Aug. 10, 2021), https://hbr.org/2021/08/stablecoins-and-the-future-of-money [https://perma.cc/G9HC-KN2M].

155 *See* Cryptocurrency/ICOs, SEC (May 18, 2023), https://www.sec.gov/securities-topics/ICO [https://perma.cc/T9KY-NXGU].

156 Blaine Friedlander, *Cornell Tech Professor Tells Congress Crypto Can Go Greener*, CORNELL CHRONICLE (Jan. 25, 2022), https://news.cornell.edu/stories/2022/01/cornell-tech-professor-tells-congress-crypto-can-go-greener [https://perma.cc/EPG3-7JY].

157 Note that not regulating these certain cryptocurrencies as securities does not mean they should not be regulated or restricted in use—it simply means "securities" regulations may not be the best fit for the purposes and risks these assets present. *See, e.g.*, Catlini & Massari, *supra* note 154 (reviewing risks of stablecoin adoption including "consumer protection, financial stability, and financial crime prevention").

158 *See supra* Section III.A.

159 *Id.*

cryptocurrency asset as a security, market participants may continue to sell other assets without registering them as securities and continue to argue that the relevant assets are distinct from others covered by securities laws. This uncertainty may continue until Congress or the agency crafts new regulations tailored to the entire class of assets labeled cryptocurrencies.

However, wile crafting new regulations may be necessary to remove uncertainty,[160] any such regulations would take significant time to develop.[161] The next question for the agency, therefore, is what to do in the time between determining new regulations are warranted and their enactment.

3. Interim Application of Existing Regulations

Because new regulatory frameworks take significant time to implement,[162] agencies may apply existing regulations to financial products or services despite the need for new regulations tailored to new market developments.[163] The application of existing regulations may occur when the

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160 *See* Stephen Cecchetti & Kim Schoenholtz, *Let Crypto Burn*, FIN. TIMES (Nov. 17, 2022), https://www.ft.com/content/ac058ede-80cb-4aa6-8394-941443eec7e3 [https://perma.cc/MFG3-REJS]. Some cryptocurrency skeptics have argued that the agency should avoid new regulations for these products to avoid legitimizing these assets and encouraging their future growth. *Id.* However, discouraging growth is not itself a reason to favor applying existing regulations rather than drafting new regulations. Such an approach would assume that any new regulations would not be a better means to reduce market risks in a more tailored way. In addition, the benefits of discouraging growth likely outweigh the potential negative impact to investors who continue to invest in that market. Accordingly, new regulations provide a better approach to analyzing the existing market weigh costs and benefits of regulatory approaches.

161 *See supra* Section III.C (reviewing challenges in regulating fintech); *supra* Section II.B (reviewing the long process of developing new regulations).

162 *See, e.g.*, *supra* Section II.B (reviewing establishment of the National Market System which continued to apply existing rules until the new system regulating exchanges and broker-dealers was implemented).

163 *Id.*

benefits of applying existing regulations meant for a different asset class (e.g., prevention of fraud for assets that do not have their own tailored antifraud provisions) outweigh the costs of applying imperfect regulations (e.g., costs on private entities or the market to applying regulations meant for different assets or services).

Assuming the benefits outweigh the costs, interim application of existing regulations to new market developments will likely occur in two instances: (1) as a temporary measure until new regulations are adopted, and (2) when the entities fit within an existing regulatory category, but the new product or entity fundamentally alters the business model of the regulated category.

The first instance occurred with the SEC's attempts to assert its jurisdiction over cryptocurrencies. As reviewed above, the SEC has stated that security regulations apply to cryptocurrency assets and market participants.[164] At the same time, the agency and Congress have made various attempts to develop comprehensive new regulations tailored to these products.[165] Thus, the implication is that existing regulations are an imperfect fit for cryptocurrencies, but the benefits of preventing fraud by applying existing regulations outweighs the costs of applying regulations developed and meant for distinct asset classes.

The second instance[166] has occurred with the SEC's regulation of online retail broker-dealers under the National Market System regulations. The SEC has continued to apply existing regulations to broker-dealers and exchanges while updating these regulations to respond to new developments in

164 *Infra* Section II.A.1.

165 David Gura, *Why Wall Street's Top Cop Thinks it's Time to Get Tough*, NPR (Dec. 19, 2021), https://www.npr.org/2021/12/19/1063573184/wall-streets-sec-gary-gensler-cryptocurrencies-bitcoin-spac [https://perma.cc/SWP8-4VTY] (reviewing how the SEC has considered different approaches for regulating cryptocurrencies).

166 I.e., the application of interim regulations when a product or entity fits an existing regulatory framework but substantially alters the currently regulated market.

the business and structure of trading markets.[167] Many online broker-dealers' designation as broker-dealers has been uncontroversial,[168] allowing regulators to bring enforcement actions with more certainty than in the cryptocurrency context.[169] As the business model of these entities has changed to rely increasingly on PFOF to generate revenues, however, the SEC has indicated a need for new frameworks to prevent conflicts of interests.[170] Unlike with the application of existing regulations to new products or environments, the regulatory environment here is more certain (with clarity about which rules apply to which entities) as well as more clearly imperfect (given the SEC has made clear it hopes to update regulations to fix certain market dynamics).

In sum, applying existing regulations in the interim prior to the adoption of new regulations indicates the SEC views the benefits of preventing undesirable market practices outweigh the costs. This leads the SEC to regulate under existing, imperfect, regulatory structures while moving towards regulations more tailored to new financial market developments. This framework may help to understand when the SEC asserts jurisdiction over new financial market developments by drawing on its jurisdiction over existing products. This may help to conceptualize its approach to regulating recent fintech developments and reduce uncertainty about how the agency will approach to new assets and services in the future.

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167 *See supra* Section II.B.2.

168 *Id.*

169 *See, e.g.*, Robinhood, Prospectus (Form S-1 Registration Statement) 196–201 (July 1, 2021) (reviewing legal proceedings); Dave Michaels & Alexander Osipivich, *Robinhood Financial to Pay $65 Million to Settle SEC Probe*, WALL ST. J. (Dec. 17, 2020), https://www.wsj.com/articles/robinhood-to-pay-65-million-to-settle-sec-probe-11608213680 [https://perma.cc/YA2E-AYUJ]; Chris Prentice & Pete Schroeder, *Robinhood Fined $70 Million for Harming 'Millions' via Misleading Info, Outages*, REUTERS (June 30, 2021), https://www.reuters.com/technology/broker-robinhood-pay-70-mln-systemic-supervisory-failures-2021-06-30/ [https://perma.cc/K34F-7EPH].

170 *See supra* Section II.B.2.

B. When and How the SEC May Limit Market Access

Limiting market access would be a significant change in the agency's historic approach to focusing new regulation on improving market access and participation.[171] However, the continued democratization of financial markets raises questions about whether the agency should continue to promote equal, increasing access to financial markets. To understand how the agency may approach limitations to market access, this section reviews factors the agency may consider to determine whether limitations on market assets for certain classes of investors or assets are appropriate.

1. Types of Risk that May Justify Limiting Market Access

First, the agency would need to identify the risks that would justify limiting market access. Specifically, before imposing a limit on market access, regulators must find that limitations to a given market are justified by either (1) absolute risks, or (2) relative risks (those relative to other market participants). This requires a complex analysis of the risks and benefits of market participation across investor classes as well as judgments about the amount of risk appropriate for classes of investors to adopt in their investment strategies.

Absolute risk refers to the individual investor's risk of loss from accessing the market at issue. It is in the nature of investing in financial markets that individuals accept the risk that they may lose their investment.[172] If a class of investors' degree of risk becomes exceedingly high relative to the potential for a return, however, it may justify limiting their access in the relevant market. In an extreme scenario, for instance, if there is a near-certain risk of lost investment

[171] *See supra* Section II.C.

[172] Sec. Exch. Comm., *What is Risk?*, INVESTOR.GOV (Jan. 15, 2021), https://www.investor.gov/introduction-investing/investing-basics/what-risk [https://perma.cc/MTM7-E7HW] (noting that "[a]ll investments involve some degree of risk").

without a corresponding opportunity for gain, the market should not be open to that investor. Difficulties will arise, however, in regulators' ability to quantify risks and potential returns – e.g. how to determine that the risk of loss is near-certain in this scenario. The potentially greater difficulty is how to determine the appropriate degree of risk relative to potential return that justifies market limitations[173] – line drawing may be inherently subjective. The analysis becomes even more complicated if one considers not just risk in particular markets but also risks borne by particular market participants in particular markets.[174] It may be nearly impossible to delineate the different degrees of risks borne by different classes of investors who may be interested in investing in different asset classes. Identifying the many variations of measuring absolute risk is beyond the scope of this Note but the agency must make these determinations when intervening in markets.

The second type of risk, relative risk, considers the level of risk of one class of investors compared to other market participants. As with absolute risk, it is inherent in financial markets that investors will enter financial markets with different degrees of information or expertise and face different degrees of risk.[175] However, as with the consideration of absolute risk above, there may be unfairness if, for example, one investor has a 95% chance of losing their investment in a

[173] Identifying risks and returns requires considering the nature of the asset class at issue. This may be especially difficult for new asset classes that promise "revolutionary" applications, as illustrated with the rise of cryptocurrencies which some argued would revolutionize payments while others argued this was unlikely. *See, e.g.*, Eswar Prasad, Opinion, *Five Myths About Cryptocurrency*, BROOKINGS INST. (May 24, 2021), https://www.brookings.edu/opinions/five-myths-about-cryptocurrency/ [https://perma.cc/VN4T-JBKX] (concluding that Bitcoin is not efficient for transactions and is essentially a speculative asset).

[174] For example, absolute risk under this framework would consider separately the risks faced by uninformed retail investors and institutional investors. *See supra* Section III.D (reviewing differences in risks for retail and institutional investors).

[175] United States v. O'Hagan, 521 U.S. 642, 658 (1997) ("[I]nformational disparity is inevitable in the securities markets[.]").

given asset class while another has a 5% chance of lost investment when investing in the same product due to asymmetries in access to information or expertise. Insider trading is often justified along lines relating to relative risk – considering the need to increase market fairness by reducing unfair advantages to market participants (those with access to material, nonpublic information).[176] Similar principles may also justify limitations on market access if the market is significantly unfair due to its structure. This may be of less concern than absolute risk given the potential to continue to earn reasonable returns even if there is significant relative risk, but regulators should still consider this type of risks to ensure investors do not perceive the market as inordinately unfair.

Considered together, significantly high levels of absolute or relative risk relative to potential gains may lead regulators to conclude that restrictions on market access are warranted. However, regulators face difficult questions of how to measure these risks and when the degree of risk reaches a point warranting regulatory intervention.[177] An additional complication is how to consider alternatives to market access which may improve risk measures for investors and assets.

2. Alternatives to Limiting Market Access

Second, the agency would need to consider alternatives to limiting market access. There are countless ways the SEC may reduce risks in financial market participation short of limiting market participation. These new regulations may render more direct limitations on market access unnecessary.

To illustrate the impact of such regulations on this analysis, one can review the impact of one type of regulatory intervention based on nudge theory.[178] Nudge theory refers to

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[176] *See supra* Section II.C (discussing regulation of insider trading of securities).

[177] See, e.g., John C. IV Coates, Cost-Benefit Analysis of Financial Regulation: Case Studies and Implications, 124 YALE L.J. 882 (2015).

[178] *See* CASS SUNSTEIN & RICHARD THALER, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS (2008). *See also* Barry

an approach wherein regulators craft regulations to guide individuals to making decisions that regulators consider beneficial while allowing individuals to make decisions regulators consider harmful.[179] In theory, this will lead to net positive outcomes for many individuals (who are guided to the beneficial actions) while avoiding being overly restrictive to people who desire to engage in practices regulators consider harmful. Such an approach in this context would aim to reduce absolute or relative risks by guiding certain classes of investors to make decisions that are less risky without restricting their access from the market altogether. For example, one may consider a nudge-based approach to reducing risks to seamless access to trading in stocks and cryptocurrencies, which some have argued encourages excessive risk-taking.[180] A nudge-based approach may require a consideration of investment risks before making investment decisions. This may be done in a variety of ways: by simply flagging the risks and costs before confirming a trade, by requiring additional steps to confirm the investor wants to take a trade, or by prominently displaying less risky trading strategies but allowing access to riskier strategies. Each approach could reduce the potential for uninformed risk-taking but still allow investors to make decisions that may ultimately be against self-interest, in line with other nudge-based approaches.[181]

Again, there are countless potential regulations that would reduce risks to a degree that direct limitations on markets are no longer deemed necessary. The key point is that once a given regulation is chosen, the agency would then re-evaluate the

Schwartz, *Why Not Nudge? A Review of Cass Sunstein's Why Nudge,* BEHAVIORAL SCIENTIST (Apr. 17, 2014), https://behavioralscientist.org/nudge-review-cass-sunsteins-why-nudge/ [https://perma.cc/H96V-QPJF].

[179] *See* SUNSTEIN & THALER, *supra* note 178.

[180] *See supra* Section III.B (reviewing criticisms of Robinhood including for PFOF and gamification).

[181] *See* Schwartz, *supra* note 178 (reviewing that this approach steers individuals towards proper decisions while allowing them to resist "nudges if they choose to do so").

absolute and relative risks to investors before determining that more direct forms of market limitation are necessary.

3. Limiting Market Access without Being Over-Inclusive

Third, once regulators determine that the risks justify market limitations, and alternative means of regulation do not sufficiently reduce these risks, the agency may then consider the proper means to limit market access. Such restrictions may consider both the assets themselves as well as classes of potential investors. As with the consideration of alternatives to restrictions on market access above, there are many ways to restrict access short of across-the-board limits on access to a particular market. Because different classes of investors do not face the same degree of risks, limiting access for certain groups investing in certain asset classes may be more appropriate than across-the-board restrictions. Regulators must draw lines in tailoring restrictions to prevent harms from investors facing unjustifiably high risks while retaining the benefits of facilitating market transactions (e.g., allowing investors to benefit from investment returns and entities to gain from access investor capital).

To illustrate how regulators may limit market access, this Section reviews three potential methods: (1) an outright ban on certain markets, (2) a charter-based approach, and (3) an approach requiring "pooling" of investments with institutional investors.

In an extreme scenario, regulators may completely ban the buying and selling of certain assets across investor classes. Doing so would essentially state that the benefits of entering this market cannot outweigh its risks or other costs, regardless of one's level of investment expertise.[182] Such an

[182] China took this approach when it banned cryptocurrencies in 2021, justifying its intervention by focusing on both risks to investors and concerns about the effect these assets would have on the country's monetary policy. Eswar Prasad, *China Has Good Reason to Fear Bitcoin*, BARRONS (Oct. 15, 2021), https://www.barrons.com/articles/chinas-bitcoin-ban-crypto-regulation-central-banks-51634242888 [https://perma.cc/W3VW-

action would indicate that regulators are declaring they are positioned to determine a given market's potential risks and returns (moreso than private investors hoping to enter this market) and that there are no alternative regulations that could limit such risks for investors. Given the difficulty in evaluating a market's risks and potential returns for all investors, this approach is likely to be overly inclusive and may not account for different investor classes capacity to measure potential benefits and risks. Thus, an outright ban on accessing a given market, due to perceived risks in the market to investors, may be rare.[183]

An alternative to an outright ban is a charter- or licensing-based approach, which has been recommended by proponents of greater regulation of fintech entities.[184] Licensing and charters are used in a variety of financial market contexts, allowing federal agencies to limit access to markets while creating tailored regulatory requirements for licensed or chartered entities.[185]

Licensing allows regulators to limit investors in markets deemed too risky for the general population based on some set criteria. For instance, the "accredited investors" regulations limits participation in certain private offerings to investors who meet certain requirements.[186] This approach allows firms to access financing while reducing regulatory burdens by limiting access to certain offerings to investors able to accept

MCKX]. A similar approach in the United States seems unlikely, however, absent national security or other non-financial risks.

[183] Of course, there may be other reasons to ban access to given market – namely that the product financed in the market is harmful to particular groups or other governmental policies. However, this determination is likely something that a separate regulatory agency, rather than financial market regulators, would make.

[184] Saule T. Omarova, Dealing with Disruption: Emerging Approaches to Fintech Regulation, 61 WASH. U. J.L. & POL'Y 41 (2020).

[185] Omarova, *supra* note 184, at 42.

[186] 15 U.S.C.A. § 77d. *See also* Christopher R. Zimmerman, *Accredited Investors: A Need for Increased Protection in Private Offerings*, 114 NW. U. L. REV. 507, 509–10 (2019); Eaglesham & Jones, *supra* note 200 (reviewing the growth of accredited investors to 16 million households in 2018 from only 1.5 million households in 1982).

relatively higher risks in this market.[187] Chartering, by contrast, focuses on the enterprise.[188] Charters, used in banking regulation, authorize certain institutions to operate in a market subject to tailored regulations.[189] Some bank regulators such as the New York Department of Financial Services proposed expanding charters to fintech entities.[190] An expansion of this approach to cover fintech institutions or assets would allow the agency to permit only such entities or products deemed to benefit investors when subject to its regulations. Similar to banks, this may come alongside examination and other specific requirements to avoid risks, such as the risks of runs on assets, due to concerns about insufficient capital or fraud.[191] Both chartering and licensing would limit market access in a more tailored way than outright bans.

A third method to limit market access is to require the use of investment vehicles to access certain asset classes. Investing with larger institutions remains the dominant approach for retail investors to access financial assets.[192] This has begun to shift, however, as online retail brokers reduce barriers to direct investing in stocks, digital assets and other financial instruments.[193] This approach would aim to reverse that trend by allowing retail investors access to certain types

187 *See* Zimmerman, *supra* note 186, at 509–10; *What is an Accredited Investor?*, CARTA (Mar. 28, 2022), https://carta.com/blog/accredited-investor-rule/ [https://perma.cc/N7JB-AA8E]; *see also* Matt Levine, Opinion, *Earning the Right to Get Swindled*, BLOOMBERG (Sept. 24, 2018) https://www.bloomberg.com/opinion/articles/2018-09-24/earning-the-right-to-get-swindled [https://perma.cc/77LU-T694] (reviewing the growth of accredited investors and critiquing the exemption methodology).

188 This charter-based approach has been proposed by Professor Saule Omarova in the context of fintech institutions. Professor Omarova also reviews the proposed use of such charters by the OCC and the NY DFS. *See* Omarova, *supra* note 184, at 41–45.

189 *Id.* at 42.

190 *Id.* at 45.

191 *See supra* Section III.A.2 (reviewing the risk of runs on assets in the cryptocurrency context).

192 BARR ET AL., *supra* note 143, at 581.

193 *Id.*

of assets only when they invest through authorized institutional investment vehicles. This may reduce risks to investors based on a market's structure creating unfairness between smaller retail investors and larger institutional investors. The downside to this approach, however, is that it relies on larger institutions whose interests may diverge from the retail investors. Reducing the potential for misaligned incentives would likely require additional regulations relating to the relationship between investors and institutions.

In sum, this section considered a framework to guide how regulators may limit market access by reviewing such restrictions' potential justifications, risks, alternatives, and methods. Considering such a framework for when such restrictions are appropriate may provide guidance to regulators and more certainty for market participants as barriers to entry on financial markets continue to decrease.

V. CONCLUSION

Financial regulators are consistently required to respond to new market structure and technological developments. At times, an agency may do so using its existing regulatory authority. The SEC has, throughout its history, applied authority granted the agency in the 1930s to new developments. At other times, new regulations and new grants of authority are necessary. Congress has often amended agencies' regulatory authority to allow the agency to respond to changes in market dynamics. Both approaches are on display as the SEC has regulated cryptocurrencies and online retail broker-dealers.

Fintech's continued reduction to barriers to access presents new concerns for financial market regulators. In addition to considering whether to apply existing regulations or develop new regulatory structures, fintech may also lead to reconsiderations about how and whether to promote market access across investor classes.

In considering both challenges, now is an opportune time to consider frameworks that may provide a better understanding of how regulators approach new regulations for financial market innovations and democratized finance.