FRANKENSTEIN'S DREAMCOAT: THE RISE AND UNCERTAIN FUTURE OF THE COLLATERALIZED FUND OBLIGATION

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I. Introduction

Before global uncertainty and rising interest rates took much of the wind out of private equity's sails, the asset class saw astonishing increases in volume and investor demand. In 2021 alone, private equity funds raised $1.18 trillion globally, an increase of nearly twenty-five percent from the previous year.[2] Deal volume over the same time hit an all-time high, exceeding two trillion dollars when summed across both exit and buy-out values.[3] With private equity becoming an increasingly central part of financial markets, fund sponsors have looked to increasingly cryptic financing arrangements to raise capital for new funds. Simultaneously, retail and institutional investors alike are seeking out new ways to invest in private markets.

Seeking any means to gain exposure to private markets, retail investors have been enticed into increasingly obscure and speculative asset classes. Some sponsors, recognizing these parallel trends, have turned to the collateralized fund obligation (the "CFO") to fill the void left by the lack of access to private markets. As a product of early 2000s financial engineering, CFOs have made a surprising resurgence in the world of fund finance. Some view CFOs as the "technicolor dreamcoat of fund finance," highlighting the flexibility and creative possibilities that the instruments provide.[4] Other pundits see the CFO's resurgent as a Frankenstein's monster of financial engineering reminiscent of the

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[2] MCKINSEY & CO., PRIVATE MARKETS RALLY TO NEW HEIGHTS (March 2022), https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdf. Following Q3 of 2022, private equity deal volume and fundraising has declined significantly. BAIN & CO., GLOBAL PRIVATE EQUITY REPORT 2023 (2023), https://www.bain.com/globalassets/noindex/2023/bain_report_global-private-equity-report-2023.pdf.

[3] THEIRRY BOSLY ET AL., WHITE & CASE LLP, PRIVATE EQUITY HITS THE BREAKS IN CHOPPY GLOBAL MARKET (Jan 25, 2023), https://mergers.whitecase.com/explorer/charticle/print/3605247.

[4] JON BURKE ET AL., DECHERT LLP, COLLATERALIZED FUND OBLIGATIONS (CFOS): THE TECHNICOLOR DREAMCOAT OF FUND FINANCE (Sept. 2022), available at https://www.dechert.com/knowledge/onpoint/2022/9/collateralized-fund-obligations--cfos---the-technicolor-dreamcoa.html?v=1676928308935.

worst excesses present before the Great Financial Crisis.[5] It is undeniable that CFOs have seen an explosion of popularity in recent years and have the potential to transform from a niche product to a publicly available investment vehicle. Given their novelty, CFOs raise a bevy of new legal and policy issues relating to how they should be treated by regulators.

In this Note, I will argue two primary points about the regulation of CFOs. I will first argue that regulators must make clear their treatment of CFOs by issuing new regulations that address shortfalls in CFO disclosures, clarify the debt-equity classification of CFOs, and broaden the credit risk retention rules to cover CFO products. Secondly, I will argue that although regulation is necessary, regulators should acknowledge the broader demand for CFOs by all classes of investors and tailor their regulations so as to not stifle the public's access.

In Part II of this Note, I will discuss the early development of CFOs as financial instruments, outline the typical structure of a CFO, distinguish CFOs from related instruments, and highlight the roles that CFOs have taken in the marketplace today. Part III will outline the current regulatory framework as applied to CFOs and the central points of ambiguity that exist today. Parts IV of this Note will discuss the market forces behind the demand and supply for private equity derivatives and argue that regulators should take a nuanced approach to any new rulemaking with these considerations in mind. Part V will lay out regulatory changes that would address the main points of regulatory ambiguity that are currently present without eliminating the upside that CFOs provide. Part VI will summarize and conclude the Note.

II. Background

A. Early History of CFO Transactions Before the Great Financial Crisis and the Emergence of Private Equity

The first CFO transaction came to market in 2002 with the entrance of Diversified Strategies CFO S.A., a "fund of funds" ("FoF") CFO where the underlying asset was a FoF each with its own diversified

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[5] Stephen Gandel, *Meet Wall Street's Latest Frankenstein: Collateralized fund obligations take on a new life*, BLOOMBERG (Oct. 2, 2018), https://www.bloomberg.com/opinion/articles/2018-10-02/meet-wall-street-s-latest-frankenstein.

hedge fund strategy.[6] Shortly thereafter, Man Glenwood Alternative Strategies I hit the market.[7] Aside from some early adopters, early CFO deal volume was very limited, and some reports even suggest that there were only about half a dozen CFO transactions before the onset of the Great Financial Crisis.[8] Although many other asset-backed securities suffered significant losses during the crisis, investors in the earliest CFOs were generally repaid in full, although some of these early obligations look to have been restructured to accomplish this.[9] Nonetheless, the post-crisis environment was not kind to complicated derivative products—especially those that shared many structural characteristics with the "bad boys of the financial crisis," the Collateralized Debt Obligation (CDO).[10]

Financial markets have developed since the early 2000s, and in recent years have seen the tremendous rise of private equity as an asset class and industry. At the most basic level, private equity is named as such because it involves investment into companies that are not listed on public stock exchanges, i.e., privately held companies.[11] Private equity firms establish and manage funds that collect investor money to make investments in private companies called portfolio companies. With the specifics depending on their chosen investment strategy, funds broadly look to increase the value of their investments by improving

[6] Eun Choi & Frederic Drevon, *Moody's Assigns Ratings to 4 Classes of Diversified Strategies CFO S.A.*, MOODY'S INVESTORS SERVICE (July 1, 2002), https://www.moodys.com/research/MOODYS-ASSIGNS-RATINGS -TO-4-CLASSES-OF-DIVERSIFIED-STRATEGIES-CFO-Rating-Action-.

[7] Jeremy A. Gluck & Yvonne F. Fu, *Moody's Assigns Ratings to Man Glenwood CFO Transaction*, MOODY'S INVESTORS SERVICE (June 6, 2002), https://www.moodys.com/research/MOODYS-ASSIGNS-RATINGS-TO-MAN-GLENWOOD-CFO-TRANSACTION-Rating-Action--PR_56668; *see also* Janet Tavakoli, *Ultimate Leverage: Collateralized Fund Obligations*, TAVAKOLI STRUCTURED FINANCE LLC (June 2004), https://www.tavakoli structuredfinance.com/collateralized-fund-obligations/ [https://perma.cc/B7H5-MSAS].

[8] Jean Missinhoun & Leena Chacowry, *Collateralized Fund Obligations: The Value of Investing in the Equity Tranche*, 10 J. OF STRUCTURED FIN., no. 4, Winter 2005, at 32, 37.

[9] *Id.* at 37.

[10] *CDOs Are Back: Will They Lead to Another Financial Crisis?,* KNOWLEDGE AT WHARTON (Apr. 10, 2013), https://knowledge.wharton.upenn.edu/article/cdos-are-back-will-they-lead-to-another-financial-crisis/.

[11] KKR, UNLOCKING PRIVATE EQUITY, https://www.kkr.com/alternatives-unlocked/private-equity.

their portfolio companies.[12] For the typical structure of a private equity fund, the fund will be structured as a limited partnership, with the fund manager acting as the general partner while the investors each become limited partners.[13] The general partner acts as a financial intermediary for investors by allowing them to invest in the portfolio companies without needing to identify and manage the investment themselves.[14] In a slightly more complicated structure called an FoF, investors will invest with a general partner who will then go out and select individual funds for the FoF to invest in, adding another layer of financial intermediation between the investors and the portfolio companies themselves.[15] In either case, general partners use their expertise to select and manage investments in portfolio companies or individual private equity funds.[16] Private equity firms target higher rates of return than are typically available through public equity markets, but are generally characterized as more risky.[17] The promise of a higher rate of return allows fund managers to charge significant management fees, most typically in the form of the "two-and-twenty" compensation structure.[18] Under this structure, managers charge investors an annual fee of two percent of the fund's total assets under management and an incentive fee equal to twenty percent of the profits that the fund generates beyond a certain threshold, often called a hurdle rate.[19] In the context of the FoF structure, these management fees increase significantly since fees are owed to both the FoF general partner as well as the fund managers for each respective fund that the FoF invests in.[20]

The private equity model has become increasingly popular in recent years, with the industry seeing all-time highs in fundraising and

[12] *See id.*
[13] Robert S. Harris et al., *Financial intermediation in private equity: How well do funds of funds perform?*, 129 J. OF FIN. ECON. 287, 288 (2018).
[14] *Id.*
[15] *Id.*
[16] *Id.*
[17] KKR, UNLOCKING PRIVATE EQUITY, https://www.kkr.com/alternatives-unlocked/private-equity.
[18] Corporate Finance Inst., 2 and 20 (Hedge Fund Fees), https://corporatefinanceinstitute.com/resources/career-map/sell-side/capital-markets/2-and-20-hedge-fund-fees/ (discussing the fee structure of typical hedge funds).
[19] *Id.*
[20] Harris et al., *supra* note 13.

deal volume in 2021.[21] This influx in demand for private equity investment opportunities has created significant new incentives to use creative financial engineering to expand the number of investors that are able to invest in the asset class.[22]

B. CFO Structure

At a high level, CFOs can be characterized as asset-backed securities (ABS).[23] An asset-backed security is a type of investment that is collateralized[24] by some underlying asset pool which generates a predictable stream of cash flows.[25] Similar to bonds, ABSs generally pay investors a fixed rate of income until a set maturity date.[26] CFOs were far from the first ABS to come to market. They take structural elements from more well-known instruments like the CDO, using similar techniques to develop securities that are backed by interests in private equity and hedge fund investments.[27]

ABS issuers generally use a special purpose investment vehicle (SPV) to acquire a diversified pool of assets.[28] For the purposes of a CFO, these assets will generally be investments in a range of private equity funds.[29] The SPV will take the capital contributed by the CFO note purchasers and contributions by the CFO equity holders to purchase limited partnership interests in a diversified pool of private equity funds.[30] The notes used to finance these investments are

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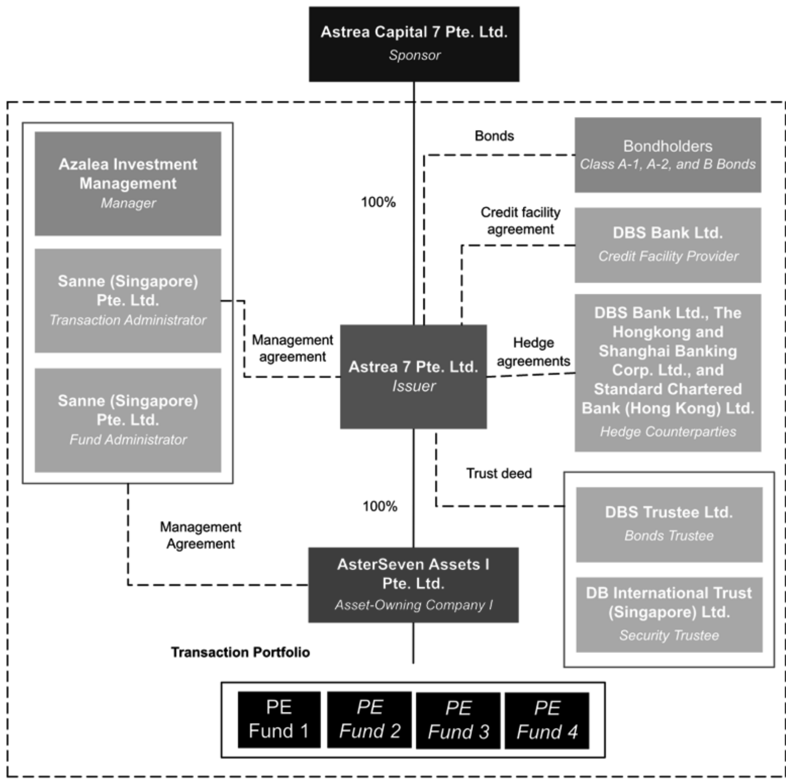
[21] MCKINSEY & CO., PRIVATE MARKETS RALLY TO NEW HEIGHTS (March 2022), https://www.mckinsey.com/~/media/mckinsey/industries/private%20equity%20and%20principal%20investors/our%20insights/mckinseys%20private%20markets%20annual%20review/2022/mckinseys-private-markets-annual-review-private-markets-rally-to-new-heights-vf.pdf.
[22] *See infra* § IV.
[23] Tavakoli, *supra* note 7.
[24] Julia Kagan, *Collateralization: Definition, How It Works, Examples*, INVESTOPEDIA (Aug. 25, 2023), https://www.investopedia.com/terms/c/collateralization.asp [https://perma.cc/K5KB-WQWX] ("Collateralization is the use of a valuable asset as collateral to secure a loan.").
[25] James Chen, *Asset-Backed Security (ABS): What It Is, How Different Types Work*, INVESTOPEDIA (Feb 17, 2023), https://www.investopedia.com/terms/a/asset-backedsecurity.asp [https://perma.cc/FQH7-ZKXF].
[26] *Id.*
[27] Kagan, *supra* note 24.
[28] *See* BURKE ET AL., *supra* note 4, at 1.
[29] *Id.*
[30] *See id.*

structured with varying seniorities.[31] The most senior notes in the capital structure receive the lowest coupon rate in exchange for their seniority in the capital stack since these notes will be paid first whenever cash is distributed among the noteholders.[32] Each tranche has priority over the junior tranches below it in the cashflow "waterfall" with the lowest tranche consisting of the equity interest in the CFO issuer themselves. While the senior notes act more like high-grade corporate debt with a fixed rate of return, the equity tranche of a CFO is essentially a leveraged position in a fund investment, which are generally leveraged investments themselves.[33] The structure of a CFO means that as you move down the cashflow waterfall, each tranche is increasingly risky and acts more and more like an equity interest.[34] The tiered structure gives investors an opportunity to invest in the tranche that most closely aligns to their risk tolerance and preferred rate of return while gaining market exposure to private equity for the purposes of building a diversified investment portfolio. The basic structure of a CFO transaction is illustrated in the following diagram from the Astrea 7 CFO.[35]

[31] *Id.*
[32] *Id.* at 7–8.
[33] Gandel, *supra* note 5.
[34] *See id.*
[35] *Astrea 7 Pte. Ltd.*, S&P GLOBAL (May 6, 2022), https://www.spglobal.com/_assets/documents/ratings/research/12366539.pdf.



One of the major selling points with all collateralized products is that they can be structured to provide investors with a single investment instrument that gives them diversified exposure to an asset class more broadly. Without the ability to invest in private equity because of minimum investor qualifications, CFOs provide another way for retail investors to get portfolio exposure to private equity that otherwise would not be available to them.[36] CFOs also provide a level of internal diversification because they derive their cashflows from a pool of assets and the risk to the investor that any one asset fails to pay off is mitigated by the other assets in the asset pool. These two characteristics make CFOs a unique asset that could lend themselves to becoming an increasingly popular choice for those looking to maintain

[36] *See infra* § IV.

a portfolio that is diversified across asset classes all while avoiding idiosyncratic investment risk.[37]

C. Related Instruments

Many of the risks that come along with CFOs can be attributed to their structure. CFOs are a novel investment vehicle but share many characteristics with other ABS products—mainly the Collateralized Loan Obligation and CDO—that have a more developed marketplace and whose regulatory treatment has had sufficient time to mature.[38] As such, understanding other common ABS products is instructive for understanding the direction that the CFO market will take.

The CDO is likely the most infamous form of ABS. CDOs were famous for their role in propagating the subprime mortgage crisis of 2007-2009 throughout the broader financial sector.[39] The financial crisis era took the concept of asset collateralization and applied it to one of the most common and homogenous assets in the U.S. financial system—the residential mortgage.[40] CDOs principally were collections of mortgage loans that would be bundled together before an issuer would sell structured notes of different tranches.[41] The notes were secured by the underlying mortgage obligations and interest payments to the noteholders would be paid out from the pool of interest payments of each of the mortgages.[42] These CDOs would be structured in various tranches that allowed investors to choose their position in the cashflow waterfall and accordingly select their preferred rate of return.[43]

These products allowed for subprime and subpar mortgages to be sold off and combined with other loans to produce AAA-rated CDO tranches.[44] These investments were often viewed as relatively lower risk

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[37] *See* James Chen, *Idiosyncratic Risk: Definition, Types, Examples, Ways To Minimize*, INVESTOPEDIA (May 12, 2022), https://www.investopedia.com /terms/i/idiosyncraticrisk.asp [https://perma.cc/6DDG-7JP5].

[38] *See* Phillip Azzollini & Craig Stein, *Collateralized Loan Obligations, in* SECURITIZATIONS: LEGAL AND REGULATORY ISSUES § 9.01 (C. VanLeer Davis & Patrick D. Dolan eds., 2000).

[39] *CDOs Are Back*, *supra* note 10.

[40] *See* Azzollini & Stein, *supra* note 38, at [1], n. 2.

[41] *Id.* at [1], [2].

[42] Jon Ogg, *CDOs and the Mortgage Market*, INVESTOPEDIA (July 20, 2023), https://www.investopedia.com/articles/07/cdo-mortgages.asp [https://perma.cc/9TJP-E75T].

[43] *See id.*

[44] *Id.*

because of the robustness of the US housing market and collateralization of the mortgage pool. Standard CDOs alone did not themselves cause the great financial crisis—synthetic CDOs and Credit Default Swaps can take much of the blame.[45] However, by their very nature, CDOs can conceal the riskiness of the underlying asset pool and obscure the individual investments that secure each tranche's cash flows.[46] Even still, the cash flows that support CDOs are understandable and regular. Residential mortgages can look relatively uniform when aggregated by certain parameters, allowing market participants to collect similar securities into mortgage pools.[47] The most commonly used parameters in the mortgage secondaries market are the mortgage's issuer, maturity, coupon, price, par amount, and settlement date.[48] For these reasons, mortgages were a natural candidate for collateralization and comprise one of the largest debt markets in the world, only trailing the U.S. treasuries market in terms of daily trading volume.[49] As discussed in more detail below, CFOs lack many of these attractive characteristics while retaining the same structural risks.[50]

A slightly less well-known development in the collateralized securities market was that of the collateralized loan obligation (CLO). Like CDOs, CLOs also use a tranche structure to diversify the default risk of the underlying loans; unlike with a CDO however, the assets securing a CLO are primarily made up of private loans to corporations.[51] Although these assets are relatively risky, there were minimal defaults during and subsequent to the financial crisis within even junk-grade

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[45] Jennifer O'Hare, *Synthetic CDOs, Conflicts of Interest, and Securities Fraud*, 48 U. RICH. L. REV. 667, 680 (2014) ("While the short investors made enormous profits, many long investors in synthetic CDOs, typically insurance companies, commercial banks, and pension funds, were completely wiped out").

[46] *Id.* at 674, 680.

[47] James Vickery & Joshua Wright, *Staff Report, TBA Trading and Liquidity in the Agency MBS Market*, FEDERAL RESERVE BANK OF NEW YORK (Aug. 2010), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr468.pdf.

[48] *Id.* at 7.

[49] SECURITIES INDUSTRY AND FINANCIAL MARKETS ASSOCIATION, TBA MARKET FACT SHEET (2015), https://www.sifma.org/wp-content/uploads/2011/03/SIFMA-TBA-Fact-Sheet.pdf.

[50] *See infra* § II(D).

[51] Houman B. Shadab, *Credit Risk Transfer Governance: The Good, the Bad, and the Savvy*, 42 SETON HALL L. REV. 1009, 1067 (2012).

CLO tranches. Investment-grade tranches fared even better.[52] Even though they were not responsible for the financial crisis, CLOs may be currently fueling a bubble in the corporate credit market.[53]

D. Unique Characteristics of CFOs

Although risky, CDOs and CLOs have been present in the market for many years and have been stress tested, for better or worse, by varying market conditions. By contrast, CFOs have only recently become widespread and have unique characteristics that distinguish them from other ABS products.

1. Availability of Information

First, unlike many CDOs and CLOs, a large portion of CFOs are private equity CFOs that are not listed on secondary markets. Aside from some instructive examples of publicly available CFOs,[54] private equity CFOs are generally only available in private placements to accredited and institutional investors.[55] Private placements are typically covered by confidentiality agreements and do not require the same disclosure rules as publicly available investments.[56] Even ratings agencies are generally not provided with any significant level of detail regarding what fund interests make up the CFO itself or what investments comprise each fund's portfolio.[57] This lack of transparency

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[52] *Id*. at 1068 ("Despite a dramatic increase in leveraged loan defaults from 2008 through most of 2010, there were minimal defaults in CLO tranches and virtually none for investment-grade tranches.").
[53] Robin Blumenthal, *CLOs: A market on edge*, PRIVATE DEBT INVESTOR (Dec. 1, 2022), https://www.privatedebtinvestor.com/clos-a-market-on-edge/.
[54] *Retail Investors of Astrea IV bonds know a good deal when they see one,* BUS. TIMES (June 19, 2018), https://www.businesstimes.com.sg/opinion-features/columns/retail-investors-astrea-iv-bonds-know-good-deal-when-they-see-one.
[55] *See* BURKE ET AL., *supra* note 4.
[56] SEC Rule 506(b) provides a safe harbor to comply with the regulatory exemption under Section 4(a)(2) of the Securities Act. 17 C.F.R. § 230.506(b); 15 U.S.C. § 77d(a)(2); *see also Private placements - Rule 506(b),* U.S. SEC. AND EXCH. COMM'N (Apr. 6, 2023), https://www.sec.gov/education/smallbusiness/exemptofferings/rule506b [https://perma.cc/ZC3U-TGFH].
[57] *Statutory Accounting Principles (E) Working Group Maintenance Agenda Submission Form*, NAT'L ASS'N OF INS. COMM'RS at 1 (Ref #2019-21, 2020)

means that there is little known about CFOs at present and that getting an accurate assessment of the market's scale is difficult.

2. Dealer's Choice: Debt or Equity

Second, while CDOs and CLOs are built upon a base of debt contracts, the assets that comprise CFOs are equity interests (generally structured as limited partnership interests) in private equity funds. At first blush, this may not seem like a critical difference, as private equity investments can be quite lucrative and should be able to cover the interest payments owed to the noteholders. The collateralization that bundles individual loans into a CLO or mortgages into a CDO does not change the nature of the underlying contractual payment streams. CFOs, however, have no contractual right to repayment in the underlying LP interests and therefore sit somewhere between debt classification (because CFOs have a fixed coupon rate) and equity classification (because there are no contractual obligations supporting payment in the underlying private equity investment). One set of issues that arise is liquidity constraints. Unlike debt contracts that have contractually structured interest payments that return some cash to investors, private equity investments are generally illiquid as investors will only receive cash from their investment when the fund exits its investments—presumably with a profit. Typically, this will not occur until many years after the fund's investors contribute their money and three to five years after the fund invests that money into a new portfolio company.[58]

Another set of issues arises when regulated investors are given the ability to choose whether their exposure to any given investment in their portfolio is nominally labeled as a debt or equity investment. Insurance companies are one such type of investor and are required to follow certain statutory accounting principles in the classification of their investments.[59] Further, insurers are overseen by the National Association of Insurance Commissioners (NAIC)[60], which requires that

("The rating agency noted that they do not formally receive information on the source of the CFO assets, but they receive source information informally through company inquiries.").

[58] Pamela Espinosa, *Fund Lifecycle: Investment*, MOONFARE (Nov. 8, 2023), https://www.moonfare.com/pe-masterclass/private-equity-investment-period.

[59] *See, e.g.*, *Statement of Statutory Accounting Principles No. 43R – Revised*, NAT'L ASS'N OF INS. COMM'RS (Aug. 10, 2022).

[60] For more information about NAIC, see the associations "About" page at https://content.naic.org/about.

insurance companies abide by certain risk-based capital ("RBC") requirements to ensure that the insurance companies can fulfill their obligations to policyholders.[61] The RBC requirement prescribes a minimum level of capital for any given insurance company that depends on the company's size and "the inherent riskiness of its financial assets and operations."[62] Notwithstanding the NAIC's standards for statutory accounting, investors can classify their investments as either debt or equity, depending on what they find most helpful.[63] NAIC has recently proposed changes to the association's accounting standards that would classify all CFOs as equity instruments for the purposes of assessing their risk under the RBC framework.[64]

3. Leverage: Doubling Down

Another issue inherent to CFOs is the leverage component. Like CLOs and CDOs, the tranche structure of CFOs generally includes an equity tranche.[65] The equity tranche of any of these instruments is the first to suffer losses in the case of a downturn but benefit from unlimited upside where the other tranches have their upside fixed by their respective coupon rate.[66] Calling the bottom of the capital structure in a

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[61] *Risk-Based Capital*, NAT'L ASS'N OF INS. COMM'RS (June 1, 2023) https://content.naic.org/cipr-topics/risk-based-capital [https://perma.cc/6VT3-5WYF].

[62] *Id.*

[63] J. Paul Forrester, *Collateralized Fund Obligations: A Primer,* MAYER BROWN at 2 (2017), https://www.mayerbrown.com/-/media/files/perspect ives-events/publications/2013/07/collateralized-fund-obligations-a-primer/files/get-the-full-report/fileattachment/130724-newsletter-fund-finance-coll-fund-oblig.pdf ("In addition, CFOs may offer certain institutional Fund Investors an opportunity for regulatory capital relief, as an Investment portfolio can be "exchanged" for CFO Securities that in the aggregate require such Fund Investor to hold less capital under applicable regulatory requirements since the senior tranches will be highly rated."); *see also* BURKE ET AL., *supra* note 4, at 9 ("[M]ost sponsors take the position that the U.S. risk retention rules do not apply to CFO transactions.").

[64] *Working Group Maintenance Agenda Submission Form*, *supra* note 57 (clarifying the scope of SSAP No. 43R – Equity Instruments).

[65] Kaye Wiggins, *Collateralised fund obligations: how private equity securitised itself*, FIN. TIMES (Nov. 24, 2022), https://www.ft.com/content/e4c4fd61-341e-4f5b-9a46-796fc3bdcb03 ("Owning the equity is 'nothing more than a levered investment into private equity', says Jeff Johnston, chairman of the Fund Finance Association.").

[66] *See id.*

CLO or CDO an equity tranche can be a bit misleading as the upside of those investments are also limited by the coupon payments of the collateralized debt pool.[67] If the senior and mezzanine tranches return some nominal amount less than the weighted aggregate coupon payment, the return to the equity tranche would be limited by the maximum coupon rate of the underlying contracts. In contrast, the CFO equity holder retains all of the upside of the private equity interest that is not captured by the structured yield of the tranche notes.[68]

While the equity tranche of a CFO shares many elements with those of other collateralized securities, one element is crucially different. Because the securitized asset pool is itself composed of equity interests in private equity funds, each CFO equity tranche is essentially a leveraged investment in each of the funds themselves.[69] One common strategy private equity firms use is the leveraged buyout, whereby the target company incurs debt to finance the fund's investment into the entity.[70] This results in the fund, and thus each limited partner, becoming an owner in a leveraged entity.[71] The hope is that the private equity principals will be able to contribute their management expertise and increase the cashflow of the company to pay down the credit facility.[72] When combined with tranche securitization structures, this strategy creates a second layer of leverage for the CFO equity holder and therefore makes the equity tranche of any CFO a twice-levered

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[67] *See* Chen, *supra* note 37 (explaining that the equity tranche of a CDO receives the excess coupon payments from the underlying pool of loans after all senior tranches have been satisfied, and therefore the maximum potential return to investors in the tranche is limited to the maximum potential value of payments that the pool can produce).

[68] Forrester, *supra* note 63, at 1 ("This tranched capital structure allows an investor in the Securities to determine its preferred risk/return investment and an opportunity in the junior CDO tranches for enhanced returns due to the leveraged structure of the CFO").

[69] Wiggins, *supra* note 65.

[70] *Id.* ("[B]uyout groups have increasingly levered up not just their portfolio companies but also the funds through which they buy them . . . ."); *see* Mellon Bank, N.A. v. Metro Communications, Inc., 945 F.2d 635, 645 (3d Cir. 1991) ("A leveraged buyout refers to the acquisition of a company [. . .] in which a substantial portion of the purchase price paid for the stock of a target corporation is borrowed and where the loan is secured by the target corporation's assets.").

[71] *See Mellon Bank*, 945 F.2d at 646.

[72] *See id.* at 646.

investment in portfolio companies that make up the funds.[73] This greatly increases the potential risk and return from holding equity in a CFO far beyond what could be expected from a standard private equity investment.[74]

4. Liquidity Challenges

Finally, CFOs face the unique challenge of liquidity and cash flow management not present in other collateralized securities. Debt instruments generally pay regular cash flows as part of the interest and principal repayment.[75] This regularity allows for predictable payments to each note holder. In contrast, private equity funds are generally not self-liquidating and therefore have a more unpredictable stream of cash flows.[76] Sponsors must pay careful attention to balance the cash flows derived from liquidation events, which are difficult to predict and may be delayed in difficult macroeconomic times.[77] CFO sponsors address this issue by investing in funds with different maturities and vintages with the thought that the liquidation events will be spread out over a longer period.[78]

E. Modern CFO Marketplace

Despite a lull of issuances in the years following the financial crisis, CFOs have more recently seen growth in issuance volume that has been primarily driven by: (i) the inefficient "secondaries market which can make sales of LP interests unattractive, (ii) the ability to collateralize CFOs with a variety of different financial assets," and "(iii) the desire of certain classes of investors such as insurers, sovereign

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[73] *See* Wiggins, *supra* note 65.
[74] Gandel, *supra* note 5 (walking through the risk-return profile of a hypothetical S&P 500-based CFO).
[75] *See, e.g.,* BURKE ET AL., *supra* note 4.
[76] *See, e.g.*, *Astrea 7 Pte. Ltd.*, *supra* note 35, at 3.
[77] *See, e.g.*, GLOBAL PRIVATE EQUITY REPORT, *supra* note 2, at 19 ("They did consider whether to sell some companies on the original time clock and take the hit on returns. But it made more sense to get with LPs and agree to delay those exits until conditions improved").
[78] *Asset Base and Structure: Constructing the asset base*, AZALEA (2023) https://www.azalea.com.sg/investor-education/private-equity-bonds/asset-base-and-structure [https://perma.cc/8YNR-6TRU] (stating that diversity across vintages is one of the most important factors for constructing the ideal asset base).

wealth funds and other regulated investors to gain exposure to Private Financial Assets."[79] While the early issuances of CFOs primarily focused on hedge fund investments, the modern CFO marketplace has been dominated by private equity CFOs.[80] In most of the world, CFO transactions take place outside of public markets and likely occur only between sophisticated institutional investors.[81] The ability of CFOs to provide levered returns to equity owners and exposure to private equity in the form of a debt instrument has likely been a central reason for the market's recent attraction to CFOs. In Singapore, the Azalea CFO series broke new ground in the CFO market by becoming the first to offer CFO notes to retail investors.[82] This development may be the first of many CFOs to become available to a broader investor audience.

III. Current CFO Regulatory Regime

Even though private equity CFOs are relative newcomers to financial markets, they nonetheless fall within the reach of multiple regulatory bodies and regimes. These existing frameworks were not designed with CFOs in mind and many fall short of addressing the unique characteristics of CFOs. For other regulatory regimes, the structure of CFOs means that it is unclear whether the existing statutes and regulations cover CFOs or if they are exempt under current policy. Examining these existing policy points will provide us with an excellent framework from which we can extend or broaden common sense policies to properly address the novelty of CFOs.

A. Opaque Financing Arrangements / Disclosure Requirements

Disclosure rules are among the most central requirements of securities and financial regulation. For ninety years, companies offering or trading in public securities have been subject to broad regulation.[83] The Securities Act of 1933 was the first to truly focus on disclosure, "specifically requiring companies offering securities, such as stocks or bonds, for public sale to provide truthful information about these

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[79] BURKE ET AL., *supra* note 4, at 1.
[80] *See supra* § II.
[81] *See infra* § IV.
[82] *See infra* text accompanying notes 92-96.
[83] Eva Su, CONG. RSCH. SERV., IF11256, SECURITIES DISCLOSURE: BACKGROUND AND POLICY ISSUES (June 25, 2019).

securities and the risks associated with investing in them."[84] The next year, Congress passed the Securities Exchange Act of 1934 which requires that companies with publicly traded securities produce regular disclosure filings.[85] The Securities and Exchange Commission ("SEC") is primarily responsible for enforcing securities laws and ensuring compliance with disclosure requirements.

The purpose of these disclosure rules is generally to facilitate the function of U.S. capital markets by informing investors, deterring fraud, and enabling market mechanisms to accurately price the risk of any given security.[86]

Most disclosure rules apply only to publicly traded securities while privately issued securities can often escape registration and the corresponding disclosure requirements.[87] Securities offerings that are exempt from SEC registration and disclosure requirements are known as private offerings, private placements, or unregistered offerings and must use one of the registration exemptions provided under federal securities laws.[88] Regulation D (Reg D) is one such safe harbor that is widely used by private equity sponsors to avoid SEC registration.[89] Reg D generally provides for some restrictions around the maximum offering amount and the type of investors that can participate in the offering, limiting the participation to "accredited investors."[90] Because of the Reg D safe harbor, most private equity funds can avoid public disclosure of their portfolio companies.[91] However, private funds are still required to make non-public disclosures to the SEC so that the

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[84] *Id.* at 1.
[85] *Id.*
[86] *Id.* ("In practice, transparency through disclosure seeks to inform investors and policymakers and enables market mechanisms to price risk and deter fraud"); Eva Su, CONG. RSCH. SERV., R45221, CAPITAL MARKETS, SECURITIES OFFERINGS, AND RELATED POLICY ISSUES, at 8 (July 26, 2018) ("[T]he SEC's primary concerns are promoting the disclosure of important market-related information, maintaining fair dealing, and protecting against fraud.").
[87] *See* Su, *supra* note 83.
[88] *Id.* at 6.
[89] *Id.* at 6; 17 C.F.R. § 230.501 (2020).
[90] *See* 17 C.F.R. § 230.501; *see also* SEC. AND EXCH. COMM'N, *Regulation D Offerings*, at https://www.sec.gov/fast-answers/answers-regdhtm.html [https://perma.cc/3UZM-RRKV].
[91] *See* 17 C.F.R.§ 230.501; *see also Regulation D Offerings*, *supra* note 90.

Commission has an accurate understanding of the private financial market.[92]

Since, at this point, nearly all CFOs in the U.S. are considered private placements, issuers are not required to disclose which fund interests comprise that CFO. This makes understanding the risk inherent to each CFO transaction very difficult if not impossible. Much of this paper's discussion of CFO structure arises from inspecting the Astrea series of CFOs.[93] These CFOs were issued by Azalea, an arm of the Singapore state-owned Tesemak, and the public ownership of Azalea comes with more robust disclosures.[94] Astrea CFOs are also unique in the way they have become available to retail investors in Singapore.[95] Because of the public nature of their sponsor and their availability to a limited number of retail investors, the Astrea CFOs are rare examples of CFOs that disclose detailed breakdowns of each fund investment.[96] Even with the added disclosures, Azalea is unable to and does not provide information on the portfolio companies that make up each respective fund portfolio included in the given CFO.[97]

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[92] Su, *supra* note 83; *but see* Robert C. Illig, *What Hedge Funds can Teach Corporate America: A Roadmap for Achieving Institutional Investor Oversight*, 57 AM. U.L. REV. 225, 279 (2007)("Even the SEC remains unclear as to exactly how many private equity funds exist, how large they are, and how often they fail.").

[93] *See, e.g.*, Azalea, *Astrea FY 2022 Annual Report (2022),* https://www.azalea.com.sg/storage/app/media/reports/Annual%20Reports/Astrea%20FY%202022%20Annual%20Report%20-%20Desktop.pdf.

[94] *Fitch Affirms Astrea IV's Class A-1, A-2 and B Bonds,* FITCHRATINGS (Feb. 14, 2023), https://www.fitchratings.com/research/structured-finance/fitch-affirms-astrea-iv-class-a-1-a-2-b-bonds-14-02-2023 [https://perma.cc/S9YF-K25Z].

[95] Raphael Lim*, Retail subscription rates for Astrea 7 bonds suggest investors may be better as assessing risk than regulators think*, BUS. TIMES (May 31, 2022), https://www.businesstimes.com.sg/opinion-features/columns/retail-subscription-rates-astrea-7-bonds-suggest-investors-may-be-better; *Retail Investors of Astrea IV bonds know a good deal when they see one*, *supra* note 54; Genevieve Cua, *Astrea IV PE-backed bonds: Looking after retail investors' interests*, BUS. TIMES (Jun. 8, 2018), https://www.businesstimes.com.sg/opinion-features/columns/astrea-iv-pe-backed-bonds-looking-after-retail-investors-interests.

[96] *Astrea FY 2022 Annual Report*, *supra* note 93, at 32.

[97] This information is almost certainty covered under a number of non-disclosure agreements between the Astrea fund vehicle, as a limited partner, and the general partners of each respective fund. *See* William W. Clayton,

B. Credit Risk Retention Rules

Following the financial crisis, the SEC adopted credit risk retention rules for securities to implement the mandate of the Dodd-Frank Act.[98] Credit risk retention rules require parties engaged in securitization ("securitizers") to retain at least 5 percent "of the credit risk of any asset that the securitizer, through the issuance of an asset-backed security (ABS), transfers, sells, or conveys to a third party."[99] These rules sought to solve the problem of misaligned economic incentives of originators who became undisciplined during the financial crisis.[100] The credit risk retention rules apply to any securitizer of an asset-backed security.[101]

As defined in the Exchange Act, the term "asset-backed securities" encompasses all "fixed-income or other securit[ies] collateralized by any type of self-liquidating financial asset (including a loan, a lease, a mortgage, or a secured or unsecured receivable) that allows the holder of the security to receive payments that depend primarily on cash flow from the asset."[102] The statute's definition gives examples such as CDOs and collateralized mortgage obligations.[103] The statute also gives the SEC the authority to classify any given security as

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High-End Bargaining Problems, 75 VAND. L. REV. 703, 738 (2022) ("In a private equity fund, it is also very common for managers to require investors to agree to nondisclosure provisions"); *see also* Madison Marriage & Chris Newlands, *Pension Funds Forced to Sign Non-Disclosure Agreements*, FIN TIMES (Oct. 26, 2014), https://www.ft.co m/content/94524a60-5b96-11e4-81ac-00144feab7de.

[98] Credit Risk Retention, 79 Fed. Reg. 77602 (Dec. 14, 2014) (implementing the credit risk retention requirements of section 15(G) of the Securities Exchange Act as added by section 941 of the Dodd-Frank Act); Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 941, 124 Stat. 1376, 1891 (codified at 15 U.S.C. § 78o-11 (2010)).

[99] Credit Risk Retention, 79 Fed. Reg. 77,602, 77,603 (Dec. 14, 2014); 17 C.F.R. § 246.4(a) (2022).

[100] 79 Fed. Reg. at 77,700 ("[O]ther requirements in [this] rule could mitigate existing conflicts of interest between third-party purchasers and sponsors who hold residual interests and senior investors").

[101] *Id.* at 77,608 ("[T]he agencies believe that applying the risk retention requirement to the sponsor of the ABS interests—as provided by section 15G—is appropriate in light of the active and direct role that a sponsor typically has in arranging a securitization transaction and selecting the assets to be securitized.").

[102] 15 U.S.C. § 78c(a)(79)(A).

[103] 15 U.S.C. § 78c(a)(79)(A)(i), (ii).

an asset-backed security for purposes of these credit risk retention rules.[104] On first impression, this would seem to naturally cover CFO issuers. However, the risk retention rules only apply to collateralized securities that are "self-liquidating."[105] As discussed in II(C)(ii)(d), CFOs are not viewed to be self-liquidating and thus the credit risk retention rules in their current form would not apply to them.[106]

Although managers of collateralized securities would appear to fall within the scope of "securitizer" as defined in the statute, the D.C. Circuit Court in *Loan Syndications & Trading Ass'n v. SEC* held that the CLO managers were not securitizers.[107] The Court reasoned that the agency improperly recharacterized the requirement that open-market CLO managers retain a credit risk with the requirement that they obtain a credit risk that they never held in the first place.[108] Managers typically use special purpose vehicles to obtain the loans and therefore never own the assets themselves.[109] This decision effectively gutted the credit risk retention rules by allowing all issuers to circumvent the requirements by simply using an intermediate entity to acquire assets rather than doing so themselves. Recognizing that this clearly defeats the statutory purpose intended by Congress, Senator Elizabeth Warren has proposed new legislation that would effectively reimpose the credit risk retention rules on CLO managers.[110]

IV. Evaluating the Merits of CFOs

The current regulatory framework that applies to CFO transactions is both unclear and incomplete. New laws and regulations are needed to clarify and expand the application of current rules to address the increasing relevance of CFOs in modern financial markets. In doing so, lawmakers and regulators need to consider the unique risks that CFOs pose that make them distinct from other existing financial instruments. More interestingly, policymakers should recognize that

[104] 15 U.S.C. § 78c(a)(79)(A)(vi).
[105] 15 U.S.C. § 78c(a)(79)(A).
[106] *See supra* § II(C)(ii)(d).
[107] 882 F.3d 220, 225 (D.C. Cir. 2018).
[108] *Id.* at 225 ("Under the rule, CLO managers must now acquire investments that may not be suitable for them, necessitating significant amounts of capital that they may neither have nor have access to.").
[109] *Id.* at 223.
[110] Sen. Elizabeth Warren et al., *Stop Wall Street Looting Act of 2021* (2021), https://www.warren.senate.gov/imo/media/doc/2021%20Stop%20Wall%20Street%20Looting%20Act%20One%20Pager.pdf.

CFOs are a natural response to the unique demands of market participants and a healthy and regulated CFO market could benefit both fund managers and investors who value the unique characteristics of CFOs.

One of the central characteristics of CFOs is that they allow for CFO equity investors (and sponsors retaining an equity interest) to boost their yield with leverage.[111] In times with growing valuations and low interest rates, this strategy can be highly effective. However, in bad times this leverage means that CFO equity tranche investors are much more exposed to downside risk than other tranches.[112]

Another risk associated with CFO investments is the difficulty of providing reliable judgments of investment risk and therefore the difficulty of providing accurate pricing information that accounts for this risk. This issue is present with many collateralized securities as the process of collateralization obscures the connection between the underlying asset and the investor. CFOs, however, add another layer of complexity. The private equity investments supporting the securities are generally exempt from formal disclosure requirements and come with layers of confidentiality agreements that further obscure root investments from investors. This is made worse by the uneven and idiosyncratic cash flows of private funds, largely relying on liquidation events to pay back returns to investors. As if these factors weren't themselves enough to muddy the waters of CFO valuation, private equity interests are also notoriously difficult to value.[113] Much of this could be solved with more transparency into fund strategy and the makeup of fund investments. However, without a regulatory mandate, private equity principals are unlikely to voluntarily surrender their proprietary strategies, historical returns, or targets to investors.

Because of the financial crisis and the damage done by CDOs and Credit Default Swaps, many view financial innovation of the kind exemplified by CFOs as an attempt by financiers to extract more in fees

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[111] BURKE et al., *supra* note 4, at 10 ("CFO notes tend to offer higher interest rates than traditional securitizations, and CFO equity is typically forecasted to provide better returns than equity investments in other securitized products").

[112] Gandel, *supra* note 5.

[113] Dylan Thomas, *Private equity faces valuation challenge in rocky year*, S&P GLOBAL (Nov. 30, 2022), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/private-equity-faces-valuation-challenge-in-rocky-year-73314024.

than they return to investors in value.[114] This cynicism is understandable, but not all financial instruments are alike. The index fund and exchange-traded fund are two examples of products that enable retail investors to achieve broad market diversification for fees that are orders of magnitude lower than those charged by actively managed funds.[115]

One should view the merits of each new development in financial markets on its own terms. Financial markets today are distinctly different from those that existed before the financial crisis, and we must look at any novel ideas in light of today's market conditions. Today, the number of public companies is shrinking and each year private markets play a larger and larger role in financing the growth of emerging companies. It is no coincidence that CFOs have found increasing popularity over the same period.[116] Regulators looking to regulate the burgeoning CFO market should do so as realists rather than cynics. This section will discuss market forces that have precipitated the rise of CFOs as an investment vehicle and how many market participants could benefit from a robust and well-regulated CFO market.

A. Private Markets: Access Restricted

One defining characteristic of private markets as compared to public markets is their exclusivity.[117] Access to private equity investments, for example, has traditionally been limited to only those investors who are deemed capable of understanding the risk of such investments.[118] Aside from encouraging a paternalistic view of retail investors, this exclusivity has cut retail investors out of a large portion of the broader equities markets and away from the lion's share of the

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[114] Gandel, *supra* note 5.
[115] Kat Tretina, *Index Funds v. Mutual Funds*, FORBES (Mar. 22, 2023), https://www.forbes.com/advisor/investing/index-funds-vs-mutual-funds/ ("[T]he average expense ratio for actively managed equity mutual funds was 0.68%, while the average expense ratio for index funds was just 0.06%.").
[116] Wiggins, *supra* note 65 ("'We represent 50 of the world's largest asset managers and lots of large private equity shops, and this is the hottest inbound call we get,' said John Timperio, a partner at the law firm Dechert who advises on CFOs.").
[117] Michael Slomovics, *Reduce income Inequality: Allow Retail Investors to invest in Private Equity*, 14 J. BUS. ENTREPRENEURSHIP & L. 329, 337 (2021) ("[T]he SEC's accredited investor standard robs the retail investor of the ability to decide for him or herself whether to invest in private placements, locking the investor out of these investments").
[118] *Id.*

growth of emerging companies.[119] Shutting retail investors out of an entire asset class also restricts the ability of these investors to allocate a portion of their portfolio to private equity. Limiting the number of available asset classes that an investor may invest in could limit their ability to construct an optimally diversified portfolio.[120] While some studies suggest that the optimal market portfolio includes some allocation to private equity, this question does not have a clear answer.[121] Regardless of whether the inclusion of some private equity investment is optimal for a hypothetical portfolio, many of today's investors are not given the option to invest in private equity at all under the current regime.[122]

This dynamic is likely to change. Momentum is moving towards greater market access for retail investors as even the SEC has expressed the desire to broaden access to private equity investment.[123] As society becomes more conscious of inequality, it seems an appropriate time to reconsider how financial regulations play a role.

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[119] *Id.*; *Private markets are primed to go mainstream*, ECONOMIST IMPACT (2022), https://impact.economist.com/projects/a-case-for-private-markets/.
[120] Daniel Schmidt, *Private equity-, stock- and mixed asset-portfolios: A bootstrap approach to determine performance characteristics, diversification benefits and optimal portfolio allocations* (Ctr. for Fin. Stud., Working Paper No. 2004/12, 2003) (observing optimal portfolio weightings of between 3% and 65%); Urbi Garay & Enrique Ter Horst, *Real Estate and Private Equity: A Review of Diversification Benefits and Some Recent Developments*, 11 J. of Alternative Inv. 90, 100 (2009); Ronald Doeswijk, Trevin Lam & Laurens Swinkels, *The Global Multi-Asset Portfolio, 1959-2012*, 70 FIN. ANALYSTS J. 26, (2014) (finding that private equity is a component of the global portfolio for the purposes of performance benchmarking).
[121] *See* Doeswiik et al., *supra* note 120.
[122] *See infra* § IV(A)(i).
[123] John Finley, *Expanding Retail Access to Private Markets*, SEC. AND EXCH. COMM'N SMALL BUS. CAP. FORMATION ADVISORY COMM.(Nov. 2019), https://www.sec.gov/spotlight/sbcfac/expanding-retail-access-to-private-markets-finley.pdf.

1. *The Accredited Investor Standard: Vertical Inequality*

The most encountered classification limiting investor access to private markets is that of the accredited investor distinction.[124] In order to maintain their compliance under the safe harbor carveouts, private equity firms are not allowed to offer their investment opportunities to the general public and are generally only allowed to offer the investments to accredited investors.[125] To qualify as an accredited investor, an individual must either have an income in excess of $200,000 per year, a net worth of at least $1,000,000 (excluding the value of a home), or certain investment professional certifications.[126] Although estimates vary, approximately thirteen percent of the U.S. population qualify as accredited investors, meaning that only a fraction of the top quartile of the population is granted direct access to private equity investment opportunities.[127] Apart from these formal limitations, funds themselves will also limit participation to only those investors that are willing to invest enough money to satisfy their minimum investment requirements.[128] Most funds maintain minimum investment requirements of $25 million, an amount that investors should expect to part with for the duration of the fund's life cycle.[129] Some private equity firms maintain

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[124] *See* Blake W. Delaplane, *Red, Yellow, or Green Light?: Assessing the past, present, and future Implications of the Accredited investor Definition in Exempt Securities Offerings*, 14 VA. L. & BUS. REV. 329, 376 (2020).

[125] SEC. AND EXCH. COMM'N, *Investor Bulletin: Private Placements under Regulation D* (Aug. 17, 2022), https://www.sec.gov/oiea/investor-alerts-and-bulletins/private-placements-under-regulation-d-investor-bulletin.

[126] *Id.*; 17 C.F.R. §§ 230.501, 230.506.

[127] Concept Release on Harmonization of Securities Offering Exemptions, 84 Fed. Reg. 30,460, 30,471 (June 26, 2019).

[128] Mary Hall, *How to Invest in Private Equity*, INVESTOPEDIA (Jan. 29, 2022), https://www.investopedia.com/articles/mutualfund/07/private_equity.asp.

[129] *Id.* ("The minimum investment in private equity funds is relatively high—typically $25 million"). This commitment period can last for 10 years or longer. *Id.* Funds with the highest minimum investment thresholds are generally those that provide the best and most consistent returns to investors. These funds are the most in-demand amongst investors. *See* NASDAQ, *Predicting Top Quartile Private Equity Performance* (Aug. 21, 2020), https://www.nasdaq.com/articles/predicting-top-quartile-private-equity-performance ("The difference between top and bottom quartile fund performance in private equity is far greater than public equity funds; 12.9 percentage points vs. 1.5

lower minimums closer to $250,000 in an effort to attract more investors to their funds.[130] Funds of funds, private equity funds that invest in a diversified pool of other private equity funds, generally have the lowest minimum investment amounts with threshold amounts ranging between $100,000 and $250,000.[131]

One way to look at the growing popularity of CFOs is as a market-driven response catering to investors that would generally fall outside the formal or informal list of people who can invest in private equity funds.[132] Demand for access to private equity investments has far outpaced the supply, as evidenced by oversubscription rates among the best private equity funds.[133] CFOs could democratize fund finance by allowing unaccredited retail investors to tap into the diversification benefits offered by private equity.

One common critique of CFOs and other FoF structures is that the multiple layers of fees, one layer being from the underlying private equity interests and another layer being paid to the aggregating sponsors, unfairly erode investor returns.[134] In the context of CFOs that are meant to be offered to the public, one could argue that these fees are justified in two ways. Firstly, the CFO sponsors that are best able to analyze fund investments and liquidity issues within the CFO will provide an investment opportunity at lower risk and therefore justify their compensation. Secondly, because CFOs are a novel financial technology, their complexity and the shortage of firms willing to underwrite them could keep supply low for some time. As the CFO market develops, fees are likely to decrease as increased competition among sponsors

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percentage points. So the cost of a bad decision for LPs is significant, and consequently increases the need for a process and practice that is tailored to maximizing the opportunity for top quartile returns.").

[130] Hall, *supra* note 129.

[131] *Id.*

[132] *See* Tan Nai Lun, *Azalea's Astrea 7 PE bonds overall 3 times subscribed at over US$2b*, BUS. TIMES (May 26, 2022), https://www.businesstimes.com.sg/companies-markets/banking-finance/azaleas-astrea-7-pe-bonds-overall-3-times-subscribed-over-us2b.

[133] Carmela Mendoza, *Oversubscription in a downturn*, PRIVATE EQUITY INTERNATIONAL (Apr. 3, 2023), https://www.privateequityinternational.com/oversubscription-in-a-downturn/.

[134] *See, e.g.*, Hall, *supra* note 129.

will cause them to focus on delivering better results for investors and offer their services for lower prices.[135]

2. Pensioners: Horizontal Inequality

The discrepancy between the investment opportunity of the very wealthy and the regular retail investor is a prime example of vertical inequality.[136] This unfair limitation is not the only way that middle- and lower-class investors are shut out of the private equity marketplace. Among unaccredited investors, public sector workers and other employees with access to company pension plans can still reap the benefits of diversification and improved returns from private equity. The differences in investment opportunities between those who invest through their pensions (these funds have the bargaining power and capital to invest directly in private equity offerings) and those who do not have access to a pension (and must invest directly through their own brokerage accounts) is a classic example of horizontal inequality.[137]

In fact, private equity investments are frequently the top-performing asset class for public pension portfolios and drive increased returns to their investors.[138] It is therefore understandable why pension managers have taken advantage of this opportunity and increased the share of their portfolios that are invested in private equity. Even after

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[135] In 2022, the SEC proposed new rules that would require private equity funds to provide investors with quarterly statements detailing certain information regarding fund fees. Press Release, SEC Proposes to Enhance Private Fund Investor Protection, SEC. AND EXCH. COMM'N (Feb. 9, 2022), https://www.sec.gov/news/press-release/2022-19; Private Fund Advisers; Documentation of Registered Investment Adviser Compliance Reviews, 87 Fed. Reg. 16,886 (Mar. 24, 2022). Private funds industry groups have since sued the Commission to halt implementation of the proposed rule. Carolina Mandl, *US private funds industry sues securities regulator over new rules*, REUTERS (Sept. 1, 2023), https://www.reuters.com/article/usa-sec-private-funds-litigation/us-private-funds-industry-sues-securities-regulator-over-new-rules-idUSKBN3073RX. Even with increased fee disclosures, it is possible that greater competition among sponsors will not lead to significant decreases in fees. *See* Sitikantha Parida & Zhenyang Tang, *Price competition in the mutual fund industry*, 70 ECONOMIC MODELING 29 (2018).

[136] Slomovics, *supra* note 117, at 339.

[137] *Id.*

[138] Micheal Katz, *Private Equity Powers Public Pension Portfolios*, CHIEF INV. OFFICER (Aug. 28, 2019), https://www.ai-cio.com/news/private-equity-powers-public-pension-portfolios/.

headwinds battered the private capital markets, private equity investments still account for roughly nine percent of all public pension fund investments in the United States.[139] These trends have widened the disparities in access between public and private sector workers to an extreme level. If regulators continue to deny normal retail investors the opportunity to invest in private equity, the CFO market could provide another outlet to these underserved investors. If one looks at the success of the Astrea CFO series and the increasing trend toward the democratization of private equity investment, a U.S.-based CFO would likely be in high demand among U.S. retail investors. Any future regulation of CFOs should consider that these instruments offer an opportunity to provide more access to private equity investment among retail investors and improve horizontal equality across investor classes.

B. CFOs: A Response to Investor Demand

As mentioned above, CFOs can be seen as a natural response to demand by both retail and institutional investors. Retail investors have largely been excluded from having any access to private equity assets in the past. For institutional investors like insurance companies, the unique characteristics of CFOs allows them to put more capital to work by working around the capital retention requirements typically associated with a portfolio of private equity interests. Given the limitations on who can invest in private markets and the diversification benefits available in these investments, investors have rationally sought out other mediums to invest. Each of these alternatives forces investors to bear greater risk of loss and expose themselves to the increasing possibility of fraud.

1. Retail Alternatives: Black Market Capital

Investors who have been unable to access private markets directly have looked to other mediums to gain exposure to similar asset classes.[140] In recent years, retail investors have looked to find access by investing in a wide variety of unproven asset classes. Individuals have

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[139] Heather Gillers, *Retirement Funds Bet Bigger on Private Equity*, WALL ST. J. (Jan. 10, 2022), https://www.wsj.com/articles/retirement-funds-bet-bigger-on-private-equity-11641810604; William W. Clayton, *How Public Pension Plans Have Shaped Private Equity*, 81 MD. L. REV. 840, 853 (2022).

[140] *See* Steven M. Davidoff, *Black Market Capital*, 2008 COLUM. BUS. L. REV. 172, 218 (2008).

filed into "investments" in new cryptocurrencies and non-fungible tokens (NFTs). These assets, as well as fund advisor IPOs and special purpose acquisition companies, are all examples of what Professor Steven Davidoff would call "black market capital."[141] Their growing popularity stems largely from an attempt by retail investors to replicate the returns and diversification offered by private markets and financial institutions seeking to profit from this new demand.[142]

Fund advisors can gain exposure to private equity by investing in the corporate entities that oversee each individual private equity fund. Private equity advisors earn profits through a "two-and-twenty" model where investors pay the fund a fee equal to two percent of the assets under management and owe the firm twenty percent of the profits earned beyond a specific hurdle rate.[143] The performance of the company is therefore tied closely to the performance of the underlying funds, allowing investors to achieve returns that correlate closely with direct investments in private equity funds.[144] Two of the world's largest private equity firms, Kohlberg Kravis Roberts & Company (KKR) and Blackstone, are both publicly traded companies.[145] Investors looking to invest in private equity but who are unable to invest directly in funds organized by Blackstone or KKR can purchase either company's public equity and profit from the success of the funds indirectly.[146]

Special purpose acquisition companies (SPACs) operate like private equity funds in that they are established and capitalized to purchase existing businesses.[147] Profit is returned to investors after the SPAC sells the improved business. Because SPACs act in many of the

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[141] *Id.* at 246-47 ("Black market capital thus produces increased investment in seemingly less suitable hedge fund and private equity substitutes . . . . It also exposes the irrationality inherent in current regulation; public offerings of private equity and hedge fund investments are prohibited, yet riskier black market investments . . . are permitted.").
[142] *Id.* at 241.
[143] *Id.* at 219.
[144] *See id.* at 219-24.
[145] Julie Creswell, *After Years of Anticipation, a Subdued Public Offering for Kohlberg Kravis*, N.Y. TIMES (July 15, 2010), https://www.nytimes.com/2010/07/16/business/16place.html; *The Blackstone Group Prices $4.133 Billion Initial Public Offering*, BLACKSTONE (June 21, 2007), https://www.blackstone.com/news/press/the-blackstone-group-prices-4-133-billion-initial-public-offering/.
[146] *See* Davidoff, *Black Market Capital*, *supra* note 145, at 227.
[147] *Id.* at 224.

same ways as private equity funds, investors and the media view them as an alternative to directly investing in private markets.[148]

2. *Astrea IV-VII CFO Series*

Although CFOs were not originally engineered as publicly available investment products, it was only a matter of time before increased demand from retail investors materialized into a new publicly available financial product. This product arrived in 2018, when Astrea IV became the first CFO that was offered to the general public.[149] At the time, the fund managers of the Astrea CFO made clear that—or at least paid lip service to the idea that—because the CFO was secured by an interest in a private equity fund, it was a way for the general public to have access to private equity investment.[150] Local media spoke highly of the original Astrea CFOs as an opportunity for retail investors to indirectly invest in private equity and investors showed a healthy appetite themselves.[151] Interest in the Astrea CFO series has remained high through each issuance and even in the face of difficult macroeconomic headwinds.[152] In light of the ratings upgrading of early vintage Astrea notes and relatively strong performance from the underlying fund interests, this demand appears justified.[153] The Astrea CFO series looks

[148] *Id.* at 227; *The New Age of Special Purpose Acquisition Companies*, CFA INSTITUTE (May 2022), https://www.cfainstitute.org/-/media/documents/article/position-paper/cfa-spac-investors.pdf.

[149] *Temasek subsidiary launches first listed private equity bonds for retail investors*, REUTERS (June 5, 2018), https://www.reuters.com/article/temasek-holdings-bondoffering/temasek-subsidiary-launches-first-listed-private-equity-bonds-for-retail-investors-idINL3N1T74SH.

[150] *Astrea IV: Connecting You To Private Equity*, AZALEA (2018) https://www.azalea.com.sg/products/astrea-iv ("[Astrea IV PE Bonds] represent the fourth series in the Astrea Platform and were a milestone in connecting individual investors to private equity.").

[151] Cua, *supra* note 95; *Retail Investors of Astrea IV bonds know a good deal when they see one*, *supra* note 54.

[152] Lim, *supra* note 95.

[153] *Fitch Upgrades Astrea V's Class A-1 Bonds to 'AA-sf' and Class B Bonds to 'Asf'; Affirms Class A-2*, FITCHRATINGS (Feb. 14, 2023), https://www.fitchratings.com/research/structured-finance/fitch-upgrades-astrea-v-class-a-1-bonds-to-aa-sf-class-b-bonds-to-asf-affirms-class-a-2-14-02-2023 [https://perma.cc/S2BY-AV47]; Raphael Lim, *Private equity not insulated from macro risks, but asset class has shown resilience: Azalea*, BUS. TIMES

primed to continue its successful run into the future and even expand retail investor access to less senior notes in the CFO capital structure.[154]

Although Astrea has been successful in recent years, there is yet to be a similar CFO available to retail investors in the United States. With the ever-increasing investor demand for more access to private markets, regulators should expect the CFO to make its debut to American investors in the coming years.

3. Institutional Investor Demand

In the United States, CFOs have thus far remained the exclusive purview of institutional investors. Unlike retail investors, institutional actors are subject to numerous compliance requirements designed to ensure that they are adequately assessing and managing their investment risk to lessen the risk of institutional insolvency.[155] The most relevant of these compliance requirements are the capital retention rules.[156] Before the current regime was established, state insurance regulators primarily used fixed capital standards whereby insurance companies were required to hold the "same minimum amount of capital, regardless of its financial condition, size, and risk profile."[157] After a string of insurance company insolvencies, regulators opted to move to a risk-based capital approach to calculating the appropriate level of capital retention.[158] These risk-based standards require that "different capital percentages be held against different categories of assets according to their perceived risks."[159] This standard considers whether an insurer offers life,

(Feb. 21, 2023), https://www.businesstimes.com.sg/companies-markets/private-equity-not-insulated-macro-risks-asset-class-has-shown-resilience-azalea.

[154] Lim, *supra* note 158.

[155] Robert B. Avery & Allen N. Berger, *Risk-Based Capital and Deposit Insurance Reform* 1 (Fed. Reserve. Bank of Cleveland, Working Paper No. 91-10, 1991) ("The lessening of bank regulations in the early 1980s, the dramatic increase in depository institution failures in the middle and late 1980s, and the passage of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) have heightened interest in depository institution insolvency risk and in the policy means to control this risk.").

[156] *See id*; *see also* NAT'L ASS'N OF INS. COMM'RS, RISK-BASED CAPITAL (Jan. 31, 2024), https://content.naic.org/cipr-topics/risk-based-capital.

[157] NAT'L ASS'N OF INS. COMM'RS, *supra* note 161.

[158] *Id.*

[159] Avery & Berger, *supra* note 160, at 1.

property, or health insurance and adjusts the capital requirements accordingly to account for the different risks associated with each respective class of underwriting.[160] The risk-based capital standard also accounts for "asset risk"—the risk associated with investments held by the insurer, including the "possibility of default of bonds or loss of market value for equities."[161] These requirements are critical to the business of insurance companies, as insurers make a significant share of their profits in the form of investment income received by investing the premiums that they charge policyholders.[162] Thus, efficient portfolio management that maximizes an insurer's risk-adjusted rate of return is critical to the success of the business.[163] For insurers, this means careful consideration of the ways that the capital retention rules affect how much capital the business is able to invest into the market. Selecting riskier assets that offer a higher expected rate of return may benefit the portfolio composition in isolation but may change the risk composition of a portfolio such that the risk-based capital requirements force the insurers to retain more capital than they would if they had chosen a lower risk investment.[164] Companies looking to maximize their returns must limit any unnecessary capital retention because every dollar retained is one that cannot be invested in hopes of a return.[165]

By way of a simple example that disregards the benefits of diversification, imagine that an insurance company is choosing between investment A and investment B for inclusion into their portfolio. Investment A is a risk-free asset and investment B is a risky asset that offers a higher return. In perfectly competitive markets, both assets should be priced such that any one rational investor is indifferent between the two. If the risk-based capital requirements are applied to this hypothetical, the optimal choice changes. Under a hyper-simplified version of the risk-based capital rules, the insurance company may be required to hold 5% of the value of its position in the risky asset as reserves if it chooses

[160] NAT'L ASS'N OF INS. COMM'RS, *supra* note 161; *see also* WELLINGTON MANAGEMENT, A U.S. INSURER'S ROADMAP FOR NAVIGATING THE NEW RBC REGS (Mar. 2022), https://www.wellington.com/en-us/institutional/insights/risk-based-capital-regs-insurers.

[161] NAT'L ASS'N OF INS. COMM'RS, *supra* note 161.

[162] AM. COUNCIL OF LIFE INSURERS, LIFE INSURERS FACT BOOK 51 (2023) ("Investment earnings contributed 31 percent [to annual income].")

[163] *See id.*

[164] *See* NAT'L ASS'N OF INS. COMM'RS, *supra* note 161; *see also* WELLINGTON MANAGEMENT, *supra* note 165.

[165] *See* WELLINGTON MANAGEMENT, *supra* note 165.

to invest in it but is not required to hold any reserves for its investment in the risk-free asset. Now, the risk-adjusted return that the insurance company can earn on each dollar that it holds will be lower if it holds a portfolio of the risky asset since it will be required to keep some percentage of its investable capital as reserves that earn no real return. Before the risk-based capital requirements were applied, the rational insurer was indifferent between the two assets. After, the story is different since a rational insurer would now choose the risk-free asset that allows the company to invest all of its available capital, improving the risk-adjusted expected return on the investment over the choice of the risky asset.

This dynamic results in an increased demand for those assets that the risk-based capital rules regard as less risky.[166] Understandably then, much of the institutional investor interest for CFOs comes from those market participants that are covered under the risk-based capital rules, such as insurance companies and depository institutions.[167] When these organizations choose to invest in a CFO instead of a garden variety private equity fund, they are able to take advantage of the less onerous capital reserve requirements that CFO bonds benefit from while still gaining exposure to private equity for purposes of diversification.[168]

C. CFOs: Private Equity's Next Best Friend

While the growth in the demand for new ways to invest in private equity has been a key element in the growth of the CFO market, demand alone is insufficient to create a market. Those organizations that control the supply of CFOs, mainly CFO managers and private equity sponsors, must see adequate incentives to continue to grow this class of derivatives. Although many publications have touted the benefits of increasing investor access to private equity investment through new technologies, the only parties that would be certain to benefit from this

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[166] *See* Wiggins, *supra* note 65 ("'We represent 50 of the world's largest asset managers and lots of large private equity shops, and this is the hottest inbound call we get,' said John Timperio, a partner at the law firm Dechert who advises on CFOs.").
[167] *See* BURKE ET AL., *supra* note 4, at 11.
[168] *See id.*

expansion are those fund managers and CFO sponsors that can take advantage of the influx in capital.[169] For one, the structure of private equity fee arrangements incentivizes funds to collect as many assets under management as possible and to include as many layers of fees as is palatable to investors.[170] Under the typical "two and twenty" fee structure, private equity sponsors would rake in two percent of each additional dollar that they can add to their assets under management.[171] Each year, investors would need to pay this fee regardless of the profitability of the fund's investments for however long their money stays under the fund's management.[172] This annual management fee becomes even more significant when it occurs in multiple layers, such as under the typical FoF structure used by CFOs where one private equity fund invests in a collection of other private equity funds rather than in private companies themselves.[173] In this structure, investors would be required to pay management fees to both the sponsor that manages the FoF and selects the private equity funds to include in the FoF portfolio *and* the fund managers of each individual investment in the portfolio.[174] Clearly, there are significant incentives for managers to uncover every possible way to increase the market for their services and their assets under management. That is not to say that CFOs have no value to the market, but rather that any regulation that facilitates the expansion of this market to a wider group of investors should come with appropriate safeguards to

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[169] *See* TYLER LOBBAN ET AL., HOW TOKENIZATION CAN FUEL A $400 BILLION OPPORTUNITY IN DISTRIBUTING ALTERNATIVE INVESTMENTS TO INDIVIDUALS, BAIN & CO. (Dec. 21, 2023), https://www.bain.com/I nsights/how-tokenization-can-fuel-a-400-billion-opportunity-in-distributing-alternative-investments-to-individuals/.

[170] *See* Dan Blystone, *Private Equity Management Fees and Regulations*, INVESTOPEDIA (Sept. 27, 2022), https://www.investopedia.com/articles/investing/072115/private-equity-management-fees-regulation.asp.

[171] *Id.*; David T. Robinson & Berk A. Sensoy, *Do Private Equity Managers Earn their Fees? Compensation, Ownership, and Cash Flow Performance* 4 (Nat. Bureau of Econ. Rsch., Working Paper No. 17942, 2012).

[172] Robinson & Sensoy, *supra* note 176.

[173] James Chen, Fund of Funds (FOF) Explained: How It Works, Pros & Cons, Example, INVESTOPEDIA (Apr. 12, 2022), https://www.investopedia.com/terms/f/fundsoffunds.asp.

[174] *Id.* ("Though FOFs provide diversification and less exposure to market volatility, these returns may be lessened by investment fees that are typically higher than traditional investment funds. Higher fees come from the compounding of fees on top of fees.")

ensure that the industry's unbridled optimism does not control the process.

V. Potential Regulatory Actions

While some regulatory bodies have made overtures toward regulating CFO transactions, others have not—at least publicly—provided any clarity around their use.[175] As discussed above, NAIC has recently signaled that they will reconsider the classification of CFOs in the context of their use as investment vehicles by insurance companies.[176] In the United States, insurance companies and insurance products are largely regulated by states rather than the federal government.[177] Therefore, while NAIC's policies are influential as models, they are only effectual to the extent that they are adopted by state-level insurance regulators.

Any major rules impacting the CFO market for all investors would need to come from the Securities and Exchange Commission (SEC), as it has the broadest authority to implement national rules around the securities industry. The SEC states that the Commission "protects investors, promotes fairness in the securities markets, and shares information about companies and investment professionals to help investors make informed decisions and invest with confidence."[178] To a lesser but still significant extent, state blue sky laws play a role in regulating the sale of securities within their jurisdictions.[179] Although many states would have little incentive to increase securities disclosure

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[175] *See supra* § II(D)(ii).
[176] *See Working Group Maintenance Agenda Submission Form*, *supra* note 57.
[177] *What do State Insurance Regulators do?*, NAT'L ASS'N OF INS. COMM'RS, https://content.naic.org/sites/default/files/about-state-insurance-regulators.pdf.
[178] SEC. AND EXCHANG. COMM'N, https://www.sec.gov/.
[179] *See* Jonathan R. Macey & Geoffrey P. Miller, *Origin of Blue Sky Laws*, 70 TEX. L. REV. 347, 348 (1991).

requirements,[180] some may jump at the opportunity to provide rules in line with investor demand for more information disclosures.[181]

Regardless of which regulatory framework one uses, the goal of any policy regulating CFO transactions should acknowledge the unique characteristics of CFOs discussed above in Part IV and seek to foster a healthy marketplace for CFO products.[182] To that end, there are two primary approaches that regulators take should when dealing with the emergence of CFOs: (1) modify the existing private marketplace for CFOs to ensure that the manager and investor incentives are aligned and that CFOs are not overleveraged, and (2) prepare a regulatory framework for when CFOs become more broadly available to the public.

A. Modifying Credit Risk Retention Rules

In their present form, the credit risk retention rules do not require CFO issuers to retain any amount of the underlying fund interest securitizing the CFO notes.[183] The central view of finance lawyers is that since the underlying assets of the CFO are not "self-liquidating," the securities issued by the CFO sponsor are not considered "asset-backed securities" that would trigger the application of the credit risk retention rules. Under this interpretation, CFO managers (even those managers dealing only in their own fund interests) are able to acquire private financial assets financed by note purchases, earn fees based on the aggregate value of the notes issued, dump the CFO equity tranche to a third party, and repeat this process.[184] CFO managers have little

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[180] Uri Geiger, *The Case for the Harmonization of Securities Disclosure Rules in the Global Market*, 1997 COLUM. BUS. L. REV. 241, 290 (1997) ("A race to the bottom might develop among states competing for multinational offerings. This risk may arise due to three factors: states' interest in attracting foreign companies to their capital market; managers' incentive to raise capital or to list securities in states which offer lax disclosure; and states' powers to externalize the deterrent effect of their regulations.") (citations omitted).
[181] *See* Frederick Tung, *From Monopolists to Markets?: A Political Economy of Issuer Choice in International Securities Regulation*, 2002 WIS. L. REV. 1363, 1385 (2002); *see also* Roberta Romano, *The Need for Competition in International Securities Regulation*, 2 THEORETICAL INQUIRIES L. 387 (2001).
[182] *See infra* § IV.
[183] *See* BURKE ET AL., *supra* note 4, at 9.
[184] *Id.* at 2.

incentive to retain their equity if their fees are earned, in part, by reference to the amount of assets that the funds has under management.[185] CFO managers would simply become CFO originators, pooling and deploying investor capital into various underlying fund investments while earning their fees for "management."

Managers are already beginning to test the limits of CFO structures with increasingly complex transactions. One such iteration is the Collateralized Continuation Fund Obligation (CCFO).[186] Under the CCFO model, a direct investor in private equity would sell their interest in the fund to a CCFO that would give them a mix of cash and equity in the CCFO itself.[187] The CCFO would be managed by the same private equity fund that managed the investor's original investment. The CCFO would then go out and issue bonds in the same manner that a typical CFO would. The CCFO would then use the proceeds of the bond sale to invest back into the private equity fund's new funds.[188] When the dust settles, this circular arrangement leaves the original private equity investor holding some cash and equity in the CCFO.[189] Recall that the equity tranche of a CFO is essentially a leveraged investment in private equity, as a CFO will use the proceeds of the bond sales to finance private equity investments in an amount that is greater than the value of the equity tranche alone.[190] The investor also comes out of the transaction with liquidity that, in the case of a pension investor, they could use to satisfy their liabilities to retirees. For the private equity fund, this transaction nets them more assets under management in the form of CCFO investment financed by debt and subsequently larger fees for creative fund manager. Managers are clearly interested in using CFOs to increase their profits, and without adequate protection for investors, they could be doing so at their expense.

This approach leaves investors of each tranche exposed to the risk of poor performance while CFO managers become indifferent to this risk after they liquidate their positions. The goal of the credit risk retention rules is broadly to "encourage sound lending practices, restore investor confidence, and permit securitization markets to resume their

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[185] Dan Blystone, *Private Equity Management Fees and Regulations*, INVESTOPEDIA (Sept. 27, 2022), https://www.investopedia.com/articles/Investing/072115/private-equity-management-fees-regulation.asp.
[186] Kaye Wiggins, *supra* note 65.
[187] *Id.*
[188] *Id.*
[189] *Id.*
[190] *See supra* § II(D)(iii).

important role as sources of credit for households and businesses."[191] The premise of the credit risk retention rules is to require managers to maintain some "skin in the game" such that their economic interests are aligned with those of the other investors.[192] Given the high leverage ratios inherent with private equity and the assets-under-management fee model, this dynamic is ripe for abuse.

Modifying the credit risk retention rules to explicitly incorporate CFO transactions would be one solution to align the interests of managers looking to create creative CFO structures with those of investors exposed to CFO notes and the equity tranche. The credit risk retention rules define an asset-backed security by reference to the definition of the term in the Exchange Act.[193] For its part, the Exchange Act defines an asset backed security as a:

> [F]ixed-income or other security collateralized by any type of self-liquidating financial asset (including a loan, a lease, a mortgage, or a secured or unsecured receivable) that allows the holder of the security to receive payments that depend primarily on cash flow from the asset, including . . . a collateralized mortgage obligation; collateralized debt obligation; [and] a collateralized debt obligation of collateralized debt obligations . . . .[194]

This definition is difficult to understand in its entirely as some of the assets that are specifically enumerated could themselves not be self-liquidating financial assets. Professor Jonathon Lipson describes this conflict as follows:

> The term "collateralized debt obligation" is problematic because it appears to conflict with the requirement that an ABS be backed by "self-liquidating" assets . . . . [C]ommercial finance lawyers generally understand CDOs (and other "synthetic" transactions) to be structured like securitizations and produce securities, but to

[191] S. REP. No. 111-176, at 37 (2010).
[192] Adam Altman, Note, *Hide that Syndicated Junk in the Closet: A Case for Credit Risk Retention in the CLO Market*, 87 CHI.-KENT L. REV. 935 at 948 (2012) (citing S. REP. No. 111-176, at 129 (2010)).
[193] 17 C.F.R. § 246.2.
[194] 15 U.S.C. § 78c(a)(79).

> involve a different input. The asset sold into the transaction is not a primary payment right, but instead may be derivative securities such as credit default swaps or bonds issued in other securitizations. Derivative rights will liquidate, however, only if the asset from which the security is derived actually produces cash (for example, when a "credit event" triggers counterparty liability on the swap).[195]

No clarification is found within the four corners of the act as it fails to define what it means for a financial asset to be self-liquidating.[196] It is most helpful to focus in on the second part of the act's definition which provides that a self-liquidating financial asset must allow "the holder of the security to receive payments that depend primarily on cash flow from the asset."[197] Further, if one looks to Regulation AB, an asset-backed security is defined as "a security that is primarily serviced by the cash flows of a discrete pool of receivables or other financial assets, either fixed or revolving, that by their terms convert into cash within a finite period."[198] Both of these definitions look to squarely encompass CFO transactions where the security is backed by a pool of limited partnership interests that, by their terms, convert to cash upon specified liquidity events that occur within the underlying funds. Even if common sense dictates that CFOs are asset-backed securities and therefore that the credit risk retention rules should apply to CFO transactions, practitioners nonetheless maintain the position that CFOs do not fall within the scope of the statute.[199] Managers have thus been able to freely dispose of any economic interest in a CFO after its formation and have less incentive to ensure that only the best funds, managers, and strategies are included in the CFO portfolio. Certainly, they have some interest in producing good products such that their buyers come back to them again and again. However, this incentive was present in all collateralized securities transactions before the onset of the Great Financial Crisis, and it was clearly not influential enough to avoid that crisis. The structurally

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[195] Jonathon C. Lipson, *Re: Defining Securitization*, 85 S. CAL. L. REV. 1229, 1258 (2012).
[196] *See id.*
[197] 15 U.S.C. § 78c(a)(79).
[198] Asset-Backed Securities, Securities Act & Exchange Act Release No. 33-8518, Release No. 34-50905, 84 SEC Docket 1624, 2004 WL 2964659, at *15 (December 22, 2004).
[199] BURKE ET AL., *supra* note 4.

weak incentives of the CFO marketplace closely mirror those of the CDO market preceding the financial crisis— the exact misalignment that precipitated the credit risk retention rules in the first place. Reforms to the credit risk rules even gained some momentum in 2021 when influential members of Congress proposed statutorily expanding the credit risk retention rules to cover collateralized products more generally.[200]

The SEC should not wait for Congress to intervene, however, and should provide clarity by including the most obvious forms of collateralized assets specifically in the regulatory definition of an asset-backed security. Ideally, the definition would accord with that provided by the commission in regulation AB to build a consistent framework from which market participants can work.[201] Bringing CFOs under the broader umbrella of the credit risk retention rules would align incentives among market participants and strengthen the CFO market in the long term. An additional benefit of broadening the scope of the rules in this way is that the cycle of collateralization to synthetic collateralization would have some natural limits. If issuers were required to retain a portion of the CFO equity, there would be far fewer incentives to abuse the demand for private equity investments and offload increasingly tenuous products onto these unsuspecting market participants. This would be a critical step in ensuring that any CFOs that become available to the public in the U.S. in the future would be properly structured.

B. A Disclosure Framework for Public Access

Currently, retail investors in Singapore are the only retail investors in the world who can directly invest in CFO bonds.[202] The Astrea CFO series provides Singaporean investors with the opportunity to invest in U.S. dollar-denominated bonds that are secured. The

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[200] *Stop Wall Street Looting Act of 2021*, *supra* note 110; *see also* Glen Fest, *Senate bill proposes return of risk-retention for US CLOs*, S&P GLOBAL (Oct. 28, 2021), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/senate-bill-proposes-return-of-risk-retention-for-us-clos-67323351.

[201] 17 C.F.R. § 229.1101(c)(1).

[202] *See* Cua, *supra* note 95; iFAST Research Team, *Astrea IV: What You Need to Know (Part 1)*, BONDSUPERMART (June 3, 2018), https://www.bondsupermart.com/bsm/article-detail/astrea-iv-what-you-need-to-know-part-1-RB_543 (stating that the Azalea Group's launching of the Astrea bonds marks the first time globally where retail investors can subscribe to PE bonds, to the author's knowledge).

consistent oversubscription rates of the Astrea CFO series demonstrates a significant market demand for more CFOs.[203] Sponsors in a broader array of jurisdictions are likely to take notice and begin structuring CFOs for their own investing population. However, this is not an avenue available to U.S. retail investors and it is likely a missed opportunity for U.S. securities regulators.

The United States should take advantage of being the world's leader in private equity and capital markets by capturing the market for private equity derivative products. Providing opportunities for retail investors to invest in private equity should be an active goal of the U.S. regulators for the many reasons discussed in Part V above. Fund managers and CFO issuers would naturally benefit from this change as well, as the number of investors from whom they can collect capital would expand significantly.

Securities regulators must ensure both that CFOs themselves are being constructed as to align the incentives of market participants and that investors have access to enough information to properly assess the risks of a given CFO and make an informed investment decision.[204] Broadening the scope of the credit risk retention rules to encompass CFO transactions would help guard against perverse incentives with respect to CFO risk. Ensuring that retail investors have adequate access to information is equally as important.

Since private equity participants are generally resistant to making their investment strategies public, it would be unlikely for any disclosure package to fully incorporate each portfolio company investment that the private equity funds are holding. If funds were required to fully disclose all investments, there would be little reason for funds to accept a CFO entity as a limited partner as doing so would compromise their strategy, and taking other investors would allow funds to maintain their confidential information. On the other hand, expecting retail investors to feel secure about their investments if the private equity funds and CFO sponsors provide no information about the downstream investments would be unreasonable.

There is a middle ground, however, that would provide retail investors with adequate information without smothering the market's growth with onerous disclosure rules. The Astrea CFO series is once

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203 Rod James, *Temasek Unit Unvels $1.1bn PE Portfolio to Back Collateralised Fund Obligation*, PRIVATE DEBT INVESTOR (May 23, 2018), https://www.privatedebtinvestor.com/temasek-unveils-1-1bn-pe-portfolio-back-clo/ (stating that Astrea III was more than eight times oversubscribed).
204 *See supra* § V(A).

again an illustrative example. Each Astrea prospectus provides extensive information about the structure of the CFO, the rights of bondholders in each class, key risk factors for investors, and a breakdown of fund investments.[205] More specifically, the prospectus provides a breakdown of each fund investment's net asset value in terms of the fund vintage, region, general partner, sector, and investee-company level concentrations.[206] This information is critical for investors looking to assess their risk exposure with regard to any one specific variable and would be necessary in all public CFO disclosures.

Azalea also provides information on key risks to the portfolio and how changes in specific conditions could impact the ability of the bonds to be repaid.[207] One risk that is inherent in these transactions and mentioned in the report is leverage risk from the perspective of the CFO and the individual fund interests.[208] Although some information about the CFO's exposure to leverage risk is included, or at least mentioned, the depth of the discussion is woefully inadequate. Unlike other macroeconomic risks such as interest rate risk, leverage risk is largely baked in at the time of investment and is therefore something that the general partners are more able to speak to than any private party would be. Thus, general partners and CFO managers should be more forthright about their use of leverage in their respective portfolios. The CFO itself uses a revolving credit facility worth up to $300 million to acquire the fund interests and pay additional capital calls as necessary.[209] By itself, this is not a huge problem, as the portfolio value ($1.9B) covers the debt sufficiently and the CFO provides for loan-to-value ratios to protect against overleverage with respect to the credit facility.[210] This structure becomes more troubling when viewed together with the leverage being used by each portfolio company. For its part, Azalea describes the leverage risk of the investment as follows:

> Portfolio PE Funds are likely to employ leverage. Use of leverage may also increase exposure of Investee

[205] Azalea, *Astrea 7 Prospectus* (May 19, 2022), https://www.azalea.com.sg/storage/app/media/reports/Prospectus/astrea-7-pte-ltd-prospectus-19-may-2022.pdf.
[206] *Id.* at 115–16.
[207] *Id.* at 63–90.
[208] *Id.* at 66–67.
[209] *Id.* at 128.
[210] *See id.*

> Companies to adverse financial or economic conditions and impair their ability to finance operational and capital needs. In particular, there is no assurance that the current interest rate levels will persist. The cumulative effect of the use of leverage and adverse financial or economic situations (such as downturns in the economy or deteriorations in the conditions of the Investee Companies or their subsidiaries) could result in substantial losses to the Portfolio PE Fund and/or the Investee Companies, and any rise in interest rates could exacerbate such losses.[211]

Although true, this description does nothing to inform investors of the *actual* leverage risk that they would face by investing the CFO. This doesn't provide any answer as to whether the private equity funds are actually employing leverage and fails to give any sense of how much leverage that funds are using, either individually or in the aggregate. For private equity investors in a world with dynamic interest rates, leverage risk is one of the central risks facing any portfolio and the extent of the leverage being employed by a fund is highly material to investment decisions.[212]

Any regulatory framework for a public market of CFOs will require investors to have access to a wide range of information, much of which can be drawn from the successful Astrea offerings. Although Astrea CFOs have been revolutionary in their availability and provide some excellent information, any analogous issuer in the United States should need to provide more information on the financial state of the underlying funds. Included fund-level leverage ratios may be one way to flush out information about the financials of the underlying portfolio companies without exposing the private equity funds to a level of disclosure that would chill the market.

The SEC has already begun the process of requiring private equity funds to improve their disclosure to investors, and the Commission is moving to bring more transparency to private markets while simultaneously ensuring that an increasing number of investors have access to private equity investments.[213] These regulatory trends lend themselves

[211] *Id.* at 17.
[212] MCKINSEY & CO., *supra* note 2.
[213] Form PF; Event Reporting for Large Hedge Fund Advisers and Private Equity Fund Advisers; Requirements for Large Private Equity Fund Adviser

to the development of the public CFO market in the United States and a regulatory framework that provides secure access to the general public. If market conditions continue to move towards an ever-increasing interaction between private funds and the broader public,[214] the SEC must be ready with a disclosure framework that protects the interests of retail investors while fostering market growth.

VI. Conclusion

Two decades after its conception, the CFO has entered a new stage in its development, becoming more widespread within financial markets while even making a public debut to some retail investors. Depending on our bias, we may be inclined to look skeptically at any new piece of financial engineering— especially those that bear a close resemblance to CDOs, the boogeyman of the financial crisis. We should, however, judge CFOs on their own merits by understanding what benefits they provide to the market while leaving no stone unturned in building an understanding of their unique risks. Most importantly, we should look at CFOs for what they have the potential to be with the proper regulatory oversight. CFOs are unique and young products that remain largely untested by macroeconomic headwinds but have the potential to provide a useful vehicle for the broader investing public to have similar investment opportunities as those that are provided to the most privileged. Whether regulators ignore them, stimy them, or build a market around them, we can only wait and see what comes of private equity's newest Frankenstein.

Reporting, 88 Fed. Reg. 38,146, 38,202 (June 12, 2023) (codified at 17 C.F.R. §§ 275, 279); Order Designating Certain Professional Licenses as Qualifying Natural Persons for Accredited Investor Status, 85 Fed. Reg. 64,234 (Oct. 9, 2020).

[214] Or Skolnik et al., *Why Private Equity Is Targeting Individual Investors,* BAIN & COMPANY (Feb. 27, 2023), https://www.bain.com/insights/why-private-equity-is-targeting-individual-investors-global-private-equity-report-2023/.