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Beyond Investor Protection: Will New Fund Liquidity Rules Mitigate "Systemic Risk?"

By Mark C. Jensen

One of the aims of the Securities and Exchange Commission's (SEC's) new mutual fund liquidity risk management rules (Liquidity Rules)[1] is to reduce the risk that a mutual fund may fail when faced with massive redemptions—a rare but not unprecedented event. The SEC also seeks to reduce the broader risk that investors could be treated unfairly when purchasing, redeeming, or holding fund shares. These goals are well within the SEC's historical purview. The SEC's other, more novel objective is to reduce systemic risk and, in particular, the stated concern that bond mutual funds could experience shareholder redemptions large enough to contribute to future financial crises.[2]

Despite their laudable stated goals, the Liquidity Rules were not adopted without spirited debate. To understand the policy issues, and perhaps to help frame future assessments of the rules' effectiveness and cost-effectiveness, it's necessary to take a step back from the text of the final rules.[3] Accordingly, this article will first review how we got here, the background and evolution of pertinent SEC regulation, and then discuss a non-exhaustive set of policy questions left unanswered by the rulemaking process: (1) whether the SEC could achieve its goals with a less directive approach, relying more on board oversight and existing Rule 38a-1 processes; (2) whether future economic research will tend to support or discredit the regulatory hypothesis that long-term mutual funds (those other than money market funds) could pose some systemic risk to the economy; and (3) whether the new rules will have the seemingly unintended consequence of influencing portfolio management decisions, such as changing the risk profile of a broad number of funds or incenting managers to conform more closely to each other, perhaps encouraging "herd behavior" rather than dissipating its effects.

Background

A security's liquidity is the operational side of its price. It is one thing to say that a share of common stock is worth $20 based on a recent trade of 1000 shares; it may be quite another thing to try to buy 100,000 shares at that price, and yet another to try to sell 100,000 shares at that price (especially if one is in a hurry to do so). In general, the easiest holdings to liquidate are securities of large capitalization companies with wide followings and highly rated debt securities, such as US government securities. Liquidation generally becomes harder for securities of smaller issuers and those with lower credit ratings, especially in the corporate and municipal debt markets. Because liquidity depends on the number, intentions, and capabilities of other market participants at any given point in time, it is as unpredictable as the price itself and harder to measure.[4]

Investors in mutual funds, as opposed to individual stocks and bonds, rarely have concerns about liquidity, specifically about their ability to redeem fund shares for cash. With few exceptions, funds must honor redemption requests daily.[5] To respond to redemptions, mutual fund managers have several sources of cash: funds usually hold a small percentage of their portfolio in cash; on most days they receive cash from purchasing shareholders; they may have access to lines of credit or other short-term credit facilities; and they can select from an array of portfolio of securities to sell (to the extent consistent with the fund's investment objectives and strategy).

Nevertheless, it is possible, though unusual, for funds to get into serious trouble when faced with large-scale redemptions, if they have seriously misjudged the pricing *or* the liquidity of their portfolio securities. These two examples involved relatively small bond funds, which invested in less tested areas of the market.

> *Third Avenue:* The Third Avenue Focused Credit Fund experienced "significant" net redemptions, amounting to about 60 percent of the Fund's total assets, in late 2015. At that point, many of the Fund's remaining portfolio Securities were illiquid, or described as experiencing "an imbalance between selling interest and buying interest."[6] The Fund's board then adopted a plan to close and liquidate the entire fund, aiming to pay shareholders out over at least several quarters.
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> The SEC Staff, which had evidently not been consulted in advance, "expressed concerns" about the liquidation plan.[7] The Fund then promptly applied for permission to suspend shareholders' rights of redemption under Section 22(e)(1) of the Investment Company Act of 1940. The SEC granted the relief, noting that "the board's goal is to ensure that the Fund's shareholders will be treated appropriately in view of the otherwise detrimental effect on the Fund of the ongoing reduction in the liquidity of the Fund's portfolio securities, the very recent extreme difficulty the Fund has encountered in selling portfolio securities at prices the Adviser deemed to be fair and the ongoing redemptions that the Fund expected."[8]
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> One of the conditions of the order was that the adviser would not be entitled to receive any fee for managing the fund through its liquidation.[9]
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> *Evergreen:* On May 23, 2008, about a year after the subprime securities markets began to deteriorate, a fund in the Evergreen complex purchased a subprime security at the deeply discounted price of \$9.50 (against an issue price of \$100). This apparent bargain, however, drew attention to the fact that a second Evergreen fund, the Ultra Short Opportunities Fund (Ultra) had been pricing the same security for months at \$98.83.
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> Evergreen quickly moved to review the pricing of all of Ultra's subprime securities. As a result, Ultra's share price (NAV) plummeted almost 20 percent in 30 days; by then, a rush of shareholder redemptions caused the fund's board to liquidate the fund. Evergreen later consented to SEC findings that, among other things, the adviser and distributor had violated Investment Company Act Section 22(c) by mispricing Ultra's portfolio securities and overstating its NAV.
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> The Order noted that, during the period that the NAV was overstated: "certain shareholders redeemed their shares at prices higher than they should have received—to the detriment of remaining shareholders—and

> certain shareholders purchased shares at higher prices than they should have paid."[10] In addition, the Fund "appeared to be performing better than it actually was…as compared to similar mutual funds."[11]

There have long been rules, however, designed to deter pricing and liquidity crises such as these. The new Liquidity Rules should accordingly be considered in light of prior law.

History and Goals of the Liquidity Rules

The fairness of purchase and redemption practices has always been at the heart of the Investment Company Act. The concept of mutual funds, that smaller investors might pool their assets in order to attract the services of an expert manager, sounds great in theory. But no intelligent person would put money in such a scheme without confidence that his or her shares will be fairly valued on the way in and on the way out. The message of the Evergreen order is almost intuitive: if the fund's NAV is higher than the actual value of its assets, redeeming shareholders will be overpaid at the expense of those remaining and purchasing shareholders will pay too much for new shares. The reverse is true when the NAV is artificially low.

NAV Pricing and Liquidity Before the 2008 Financial Crisis

The SEC has historically paid a lot of attention to NAV pricing. The basic rule is that a fund's daily NAV should reflect the current market value of its portfolio securities, where market quotations are readily available, and otherwise reflect fair value as determined by the fund's board of directors.[12] Funds must compute their NAVs at least once each business day,[13] and US fund groups almost uniformly determine prices as of the NYSE's 4 pm closing time. To ensure that no one has advance information about the day-end price, shareholder transactions must be effected using the NAV *next calculated* after the receipt of each investor's purchase or redemption order.[14] This "forward pricing" rule has been generally successful, but it only works as long as the pricing is really forward.

In the 1990s, forward pricing practices were severely tested by some investors in newly popular international funds. Because the Investment Company Act expressly favors the use of market prices whenever they are available,[15] fund groups widely use the closing prices—last actual trade or bid-ask information—as of the close of the market where each security trades. By 4 pm ET, however, closing prices for securities that trade only on Asian or European markets are at least several hours old. On most trading days, this is not a significant problem but sometimes late breaking news changes investor expectations. In particular, when US securities staged broad afternoon rallies, the hours-old closing prices of overseas securities were very often lower than they would be when their home exchanges re-opened. As a result, mutual funds that invested in international securities were open to arbitrage—risk-free trading—at the expense of remaining shareholders. Arbitrageurs, called market timers, would place purchase orders late in the afternoon on the days when US stock rallied, knowing that prices of foreign securities would be understated, and then redeem their positions within days to capture the gain. As practiced in increasing volume, market timing had the effect of diluting the gains experienced by long-term investors. In addition, since funds typically had no way of knowing which purchases were made by market timers, many funds held more cash than they would have preferred, further diluting performance for long-term investors.[16]

Funds are generally free to decline purchase orders by problematic shareholders and many tried to bar market timers. But most found it impracticable to identify or stop trading by customers whose fund shares were held through certain financial intermediaries, such as broker-dealer omnibus accounts, life insurance separate accounts, or retirement plan trust accounts.

Separately, during some adverse overseas market events in the late 1990s, some fund groups had exercised their right to fair value securities whose values had likely declined since market close, based on proxies for general market prices like index derivatives and currency trading. The SEC Staff effectively endorsed this approach, although leaving the application of it very much to the determination of fund boards or their delegates.[17] (Because Investment Company Act Rule 2a-4 requires that market prices *must* be used if readily available, each fund company's fair valuation group would need to make a determination that recent overseas closing prices, though clearly available, were no longer market quotations.). This form of fair valuation was not widely used at first; it requires expert judgment and can be difficult to implement in the 2-3 hour window that most funds have for striking their NAVs.

In 2003, a major market timing scandal erupted. Some fund groups were found to have agreed to, or at least tolerated, the activities of large-scale market timers, especially of international funds; in a couple of extreme cases, portfolio managers were found to have timed their own funds. Perhaps worse, fund groups that actively discouraged market timing often found it difficult to do so, particularly when trading took place through intermediaries that held aggregated or omnibus accounts on behalf of their clients.[18] While the harm to remaining investors may have been difficult to quantify, stories of institutional traders and insiders taking arbitrage profits, while diluting the returns of long-term investors, put the fund industry on the front pages for the first time in decades.

The SEC responded energetically. Funds were required to adopt, disclose, and enforce policies regarding market timing controls and disclosure of portfolio holdings information (usually on a delayed basis).[19] A new rule required fund intermediaries, including broker-dealers, insurance companies, and retirement plan administrators, to enforce funds' anti-timing measures or to pass through the customer level information that would enable the funds to do so.[20] The agency also claimed credit for having previously reminded fund groups of Staff guidance on fair value pricing of foreign securities,[21] although few in the industry viewed the agency's fair valuation guidance as calling for anything more than an exception process triggered by the finding of a significant event, as opposed to a mechanism that could have systematically been deployed to thwart market timers. At almost the same time, the SEC adopted Rule 38a-1, which required board adoption and oversight of policies and procedures for every requirement of the Investment Company Act.[22]

In sharp contrast with its regulation of pricing, the SEC historically dealt with liquidity through Staff guidance rather than formal rulemaking. In a 1992 release, the Commission published a revised guideline to the principal mutual fund registration form, which stated that, if a fund held a "material percentage of its assets" in securities for which there was "no established market," "there may be a question" about the fund's ability to pay redemptions in a timely manner.[23] It further declared that "[t]he usual limit on aggregate holdings by an open-end investment company of illiquid assets is 15 percent of its net assets."[24] An "illiquid asset" was one that "may not be sold or disposed of in the ordinary course of business within seven days at approximately the value at which the mutual fund has valued the investment."[25]

The SEC was not wrong to think this rather Delphic pronouncement could use a tune-up. What was the relationship between the two apparently different definitions of illiquidity? Was 15 percent the threshold for a material percentage? Were there circumstances in which the usual limit did not apply? And most important, given its appearance in Guidelines to a registration form, was it a substantive portfolio limitation or merely an indication of Staff opinion? Nevertheless, the 1992 guidance did at least imply that the SEC Staff was comfortable that a fund holding 85 percent of its portfolio in securities that were not illiquid would not have difficulty meeting redemptions.

The 2008 Financial Crisis

The bankruptcy of Lehman Brothers on September 15, 2008 triggered a crisis of confidence unlike anything since the Great Depression, or even earlier, some said. Among the first casualties was the Reserve Fund, an institutional money market fund that could not maintain its $1.00 NAV when it wrote down its holdings of Lehman debt, triggering a crippling wave of redemptions. The Reserve Fund's failure prompted widespread redemptions out of similar money market funds—those that were not restricted to investing in government debt securities. Because of the importance of these money funds to nonfinancial companies to cover payroll and other short term financing needs, the US Treasury stepped in to stem these redemptions with a 90-day money fund insurance program. This, along with many other macroeconomic steps taken by the federal government, stemmed the immediate crisis.[26]

The role of money market funds in spreading the financial crisis has been much discussed, and has led to two major rounds of new rulemaking for money market funds, both before and after the 2010 passage of the Dodd-Frank Act.[27]

For ordinary, non-money market mutual funds and their managers, however, the greater impact may have been the newly-piqued interest of a different set of regulators in seeing whether there was anything else to worry about in the industry. The Dodd-Frank Act created a new super-regulatory body dominated by bank regulators, the Financial Stability Oversight Council, which received a broad mandate to look for and regulate all sources of systemic risk and actively investigated mutual funds and their investment managers. International regulators, in particular the British Financial Stability Board and the International Organization of Securities Commissions, also became newly interested in light of the cross-border effects of the 2008 crisis.

After considerable debate,[28] the regulators remained interested in whether mutual funds and investors might accelerate future financial crises due to their redeemability (liquidity transformation) and/or a first mover advantage.[29] The FSOC conceded that "there is little historical evidence of widespread investor runs from floating-NAV mutual funds, even during times of market stress" but suggested that investors in funds focused on less-liquid asset classes, such as high yield bonds, might be more likely to redeem following poor performance.[30] The FSOC effectively deferred action, partly to evaluate the changes proposed by the SEC, including the Liquidity Rules.[31]

In explaining the Liquidity Rules' purposes, the SEC first cited traditional goals, to help ensure the ability of funds to pay redeeming shareholders promptly and avoid dilution to remaining shareholders.[32] It went on to cite more systemic goals: to temper the risks that fund shareholders may panic due to a perceived "first mover" advantage, and that portfolio managers may in turn worsen market sell-offs by dumping less liquid securities at fire sale prices.[33]

Open Questions; Unintended Consequences?

The new Liquidity Rules create a comprehensive regulatory scheme where before there had only been guidance, and quite simple guidance at that. The requirements have already been well summarized in these pages (see sidebar below).

Highlights of the SEC's Liquidity Risk Management Rules

- *Definition of Liquidity Risk:* "[T]he risk that [a] fund could not meet requests to redeem shares … without significant dilution of remaining shareholders' interests …" [Rule 22e-4(a)(11)]
- *Liquidity Categories:* [Rule 22e-4(a)(6), (8), (10), (12)] In current market conditions, it is reasonably expected that, without significantly changing their market value:
  - A "highly liquid investment" can be converted to cash in 3 business days or less;

  - A "moderately liquid investment" can be converted to cash in 3 to 7 calendar days; and
  - A "less liquid investment" can be sold (not necessarily settled) in 7 calendar days.
  - "Illiquid investments" are those that remain; it is not reasonably expected that they can be sold within 7 calendar days without significantly affecting their market values.
- *15% Illiquid Investment Limit:* A fund may not acquire any illiquid security if doing so would cause it to hold more than 15% in illiquid securities [Rule 22e-4(b)(1)(iv)]. This rule replaces informal guidance that was not accompanied by a correction mandate.
- *HLIM:* Except for funds that "primarily" hold highly liquid investments and "in-kind ETFs", each fund must set a "highly liquid investment minimum" (HLIM) based on its individual facts and circumstances, and establish procedures for responding to an HLIM shortfall [Rule 22e-4(b)(1)(iii)].
- *Liquidity Program:* It is not sufficient merely to comply with these standards.
  - Each fund must establish, and annually review, a Liquidity Program, including its HLIM if applicable, reflecting consideration of a nonexhaustive set of Liquidity Risk Factors [Rule 22e-4(b)(1(i)].
  - The fund's board must approve, and annually review, the Liquidity Program, and approve the appointment of a Liquidity Program Administrator (or committee) [Rule 22e-4(b)(2)].
  - The fund must classify each of its investments into the liquidity categories above, "using information obtained after reasonable inquiry and taking into account relevant market, trading and investment-specific considerations…" [Rule 22e-4(b)(1)(ii)].
  - Whenever its illiquid securities exceed 15%, the fund must report to the board within one business day, with a plan to bring the figure below 15% within a reasonable time.[Rule 22e-4(b)(1)(iv)].
- *Reporting and Disclosure:*
  - Form N-PORT: This nonpublic monthly report to the SEC about fund portfolio holdings will now require information on
    - the liquidity classification of portfolio securities, individually and in the aggregate; and
    - the fund's HLIM and any shortfall incident.
  - Form N- LIQUID: A new nonpublic report to be filed with the SEC in the event of certain 15% illiquidity or HLIM Shortfall situations.
  - Fund Prospectus: Must contain additional disclosure about fund redemption practices. Form N-1A, Item 11(c)(7), (8).

I credit the SEC with setting much clearer expectations in a previously neglected area. The Staff's earlier liquidity guidance left a great deal of uncertainty and, since it was not an adopted rule, was of doubtful enforceability. The new standards define liquidity more robustly, incorporating the dimensions of price impact and market depth, set minimum industry-wide standards, require board and compliance oversight, and may improve the quality of data available to regulators. In short, the rules should certainly reduce the risk that liquidity events will harm mutual fund shareholders, especially in smaller or newer investment management organizations.[34]

Yet it's important not to overstate the scope of the problem. The *Third Avenue* and *Evergreen* cases may be no more than exceptions that prove the rule of good governance in an industry of over 10,000 mutual funds and ETFs:[35] both were relatively small funds with large percentage stakes in relatively small and untested market segments; and one involved a longstanding violation of existing pricing rules. Perhaps more important, neither significantly disrupted the markets.

So it is fair to ask whether the SEC's sweeping rules are appropriately calibrated to address these risks without undesirable consequences. Here are a few questions.

Does the new liquidity management program requirement meaningfully supplement what would have been required by existing Rule 38a-1?

The SEC chose a striking title for the Adopting Release and new Rule 22e-4: "Liquidity Risk Management Programs." The inclusion of the word Programs in the title signals that this initiative is meant to be qualitatively different from other Investment Company Act regulations. In my view, this reflects the SEC trying to become a regulator of systemic risk, even though the Adopting Release treats this motivation as secondary.

The reason I say this is that, as we have seen, the Investment Company Act already has a broad compliance program, Rule, 38a-1. Evidently the SEC did not feel that it would be sufficient to entrust oversight of Rule 22e-4's new definitions and standards to existing board oversight under Rule 38a-1 (which would clearly sweep in Rule 22e-4); a new program requirement would be needed.

This choice is in some ways surprising because Rule 38a-1 was such a huge priority for the SEC at the time of its adoption. The industry had then argued that an across-the-board compliance program rule was overbroad and heavy-handed (and not without some reason) but the market timing scandal swept aside all opposition. Under Rule 38a-1, every mutual fund must already:

1. Adopt policies and procedures reasonably designed to prevent violation of every applicable federal securities law and regulation;
2. Adopt policies and procedures providing for the oversight of compliance by each fund's investment adviser and other service providers;
3. Get approval of those policies by a majority of disinterested fund directors;
4. Annually review the policies and procedures, including "the effectiveness of their implementation;"
5. Designate an individual chief compliance officer, accountable directly to the fund's board, to be responsible for administering the policies and procedures and for providing an annual written report that must address, among other things, each material compliance matter since the date of the last report.

Again, the SEC must have determined that Rule 38a-1 compliance procedures alone would not be sufficient to enforce Rule 22e-4's new standards. In this, the agency is treating previously unregulated liquidity risk differently—as a higher risk management priority—than the Investment Company Act's other regulations of portfolio management practices, including: issuer diversification,[36] industry concentration,[37] fund names that suggest investment policies,[38] pricing (per above) and, perhaps most important from a systemic risk perspective, leverage.[39]

To be sure, Rule 22e-4 has some different timing and qualitative review standards than would automatically apply under Rule 38a-1.[40] Specifically, Rule 22e-4 will require:

- Assessment and periodic review of *projected* liquidity risk under normal and "reasonably foreseeable stressed conditions" (38a-1 is more retrospective);
- *Monthly* review of each portfolio security's liquidity classifications (as opposed to a mostly annual review), and
- For certain funds (those which do not invest primarily in highly liquid assets), *very short deadlines* for reporting and correction of violations of their highly liquid investment minimums.

But it is not clear to me that the SEC could not have written Rule 22e-4 to incorporate these more granular requirements, while leveraging

Rule 38a-1 procedures, in lieu of enacting a new program requirement.

The questions I would ask are whether this is the most efficient use of oversight resources and whether the SEC's approach has the effect, perhaps unintended, of allocating more resources and attention to liquidity risk (a relatively rare problem) at the expense of many other elements of investment and operational risk.

Is there really a first-mover advantage for redeeming shareholders?

The Adopting Release postulates that, "in times of liquidity stress in the markets," fund shareholders may have "incentives … to redeem quickly to avoid further losses (or a 'first-mover advantage')."[41] That is, in a deteriorating market, shareholders may perceive that they will get a higher price by redeeming sooner. Such a situation could increase redemption pressure on the fund, increase selling pressure on the underlying securities and disadvantage remaining shareholders.

The problem is that, outside of money market funds, the first-mover advantage may not exist. As the SEC remarkably stated: "[w]e agree with commenters that the empirical support for the existence of a first-mover advantage is not conclusive and that the mutual fund industry has been able to successfully navigate periods of historical market stress."[42]

The SEC is correct that the primary studies in the Adopting Release do not provide strong evidence for such an effect. The "DERA Study," published by the SEC's Division of Economic and Risk Analysis, is cited primarily for its conclusion that large outflows (shareholder redemptions) cause US equity mutual fund portfolios to become less liquid, where liquidity is measured by an increase in the cost to sell portfolio securities. "[A] 10 percent outflow increases the impact of selling $10 million of the asset-weighted average equity portfolio holding by 11 basis points."[43] The DERA study also found that smaller equity funds or funds invested in less liquid equities experience greater decreases in liquidity after outflows.[44] From this, the SEC concluded that US equity funds typically sell their more liquid holdings first in the event of significant shareholder redemptions.[45]

Without questioning DERA's methods or conclusions, the study is not particularly helpful for two reasons. First, it deals with US equity funds, which are not high on the list of likely liquidity concerns. Investors don't expect that common stocks will have stable values; in fact, it's this risk that provides the opportunity for higher long-term returns. Second, DERA's measured effects appear to me to be quite small: 11 basis points is about a penny per share on a $10 stock in the portfolio. To be sure, this is only an average; smaller, less liquid funds will pay more when market liquidity ebbs. But it's not a number that seems likely to cause investors to rush for the exits.

Similarly, it does not seem troubling that, according to another recent, preliminary study, "corporate bond funds tend to sell proportional 'strips' of their portfolios during periods of high market volatility and disproportionately sell more liquid assets during periods of lower market volatility."[46] Even if this is no more than a "tendency," it points in the direction of appropriate risk and cost management: the risk of uneven shareholder impact and potential first-mover advantage would occur during periods of higher market volatility, which is exactly when the study found that managers tend to sell "strips," that is, a percentage of every holding. Conversely, when markets are less volatile, it's logical to save transaction costs by selling more liquid positions first. Taking a step back, this study suggests that leaving the tactical decision of what to sell to portfolio managers, subject to board oversight, may be a perfectly reasonable regulatory strategy.

The SEC also cited two academic papers that "have suggested that an incentive exists for market participants to front-run trades conducted by a fund in response to significant changes in fund flows."[47] It turns out, however, that these incentives are not necessarily easy to exploit, nor are they guaranteed to persist. Both papers rely on a system for identifying stocks widely held in mutual funds whose lagging performance makes them likely candidates for future shareholder outflows. The more recent Dyakov paper seeks to determine whether this insight can actually be exploited to short (bet against) stocks commonly held by the laggard funds, using publicly available fund holdings information that is disclosed after a lag time estimated (realistically) at two months. Over the period 1990-2010, the authors found no benefit at all to shorting all identified stocks, but a significant benefit (excluding trading costs) to shorting only smaller stocks, those below the average size of listed stocks on the New York Stock Exchange. But any aspiring short seller would have had to know in advance what the authors found in retrospect: it only works with the smaller stocks. Worse, for the hypothetical short seller, the strategy became less successful over time, so that "by the end of 2010, the monthly profitability of the trading strategy had already evaporated."[48] It would take a very intrepid short-seller indeed to make a large bet on a strategy whose benefits may not persist and whose parameters are so difficult to ascertain in advance. Finally, and significantly for regulatory purposes, the authors observe that "the profits of the front-running strategy do not necessarily have to be at the expense of mutual funds in distress."[49]

Again, the point of these observations is not to suggest that there is no point in regulating mutual fund liquidity. It's well within the SEC's authority to try to prevent the recurrence of terrible outcomes like those of *Evergreen* and *Third Avenue*. Further, although the Dyakov paper does not acknowledge this, this study includes the high period of market timing (1990-2003); it does not mention that the SEC's rulemaking and related industry steps to combat market timing may have contributed significantly to the decline of their front-running strategy.

Rather, the point is that, given the admittedly "inconclusive" state of research, the Liquidity Rules were enacted in large part to mitigate risks that may not be systemic and may not even exist. Other researchers have also found it difficult to find or quantify "herding" behavior.[50] Perhaps future research will resolve this question. In the meantime, it remains unclear whether the Liquidity Rule will provide meaningful systemic risk reduction.

How will the new rule change portfolio management?

In several ways, the Liquidity Rules are likely to change the way mutual fund portfolios are managed, with some potentially negative effects on diversity of investment opinion and on the range of choices available to mutual fund investors.

1. The Adopting Release effectively acknowledges that fund groups are likely to rely heavily on third-party vendors for position-by-position liquidity information. This is cited as a positive at first, a way of mitigating compliance costs across the industry.[51] However, as the comment letter of the Investment Company Institute (ICI) pointed out, this may create a risk that the vendors become *de facto* liquidity rating agencies whose upgrades and downgrades of individual securities could, ironically, drive widespread buying and selling.[52] A similar phenomenon is observed with stocks being included in, or dropped from, indexes like the S&P 500. The agency response was that, vendors or no vendors, liquidity determinations are the responsibility of fund management.[53]

Needless to say, this guidance is not a model of clarity. The reliance on vendors for liquidity data will, accordingly, vary across the industry, and the sensitivity of security prices to changes in vendor liquidity data will be an area to watch.

2. A related issue is that the new attention on portfolio liquidity may further reduce the liquidity of less liquid asset classes, such as high-yield bonds, 144A restricted securities, and some categories of alternative investments. The Evergreen and Third Avenue funds were participants in these markets. To meet the rule's requirement that each fund establish and enforce a Highly Liquid Investment Minimum, funds that have historically invested in less liquid markets will inevitably have to hold a higher percentage of more widely traded issues and may sharply limit efforts to buy securities at distressed prices. They may become different funds as a result.

This potential side effect was even acknowledged by the SEC: "the potential for decreased investment options for certain investors, and any related decrease in investment yield, has the potential offsetting benefit of decreased liquidity risk in the funds in which these investors hold shares."[54] To the extent that consumer safety—as contrasted with investor choice—is a priority for the SEC, its interests are similar to those of banking regulators and of the SEC itself in its much tighter controls of money market funds. As a 2015 study by PwC observed:

> The suite of regulatory reforms across banking and capital markets has undoubtedly led to a more resilient banking industry. However, these reforms do not necessarily improve financial markets liquidity. For certain financial market activities, this may have been intended, but broader, presumably unanticipated, reductions in financial markets liquidity may have been deeper than intended.[55]

This study observed a substantial increase in demand for, and hoarding of, Treasury and other sovereign debt in the wake of financial crisis regulatory reforms, which has had a ripple effect on the liquidity of other forms of financing, including collateralized repurchase agreements.[56] Similarly, the SEC's money market reforms have greatly shrunk non-government prime money market funds, especially institutional prime funds that had to move to a floating NAV.[57] These funds had, among other things, been an important provider of short-term financing for industrial corporations via the commercial paper market.[58] Presumably these corporations have found other forms of financing (at some cost), and investors have moved to less risky cash equivalent investments, but the net effect appears to have been a reduction in competition and liquidity to the economy.

If this is an intended result of the liquidity rules, it truly marks an expansion of the SEC's purview from disclosure and market fairness into the realm of systemic market regulation. Beyond traditionally conservative and bank-like money market funds, the agency is now taking greater responsibility for the amounts and types of risks that mutual fund investors may take on. The impact on choices available to mutual fund investors will, accordingly, be another area to watch.

3. Finally, the Liquidity Rules have introduced the novel concept of forecasting market liquidity, in the form of stress testing.

The new liquidity classification system is based on an assessment of each security's liquidity "under current market conditions"[59] and would likely be unmanageable otherwise. In addition, the "program elements" further require that each fund "assess, manage, and periodically review" its liquidity risk, including "consideration of . . . investment strategy and liquidity of portfolio investments during both normal and reasonably foreseeable stressed conditions . . ."[60]

This oversight structure may change portfolio management more profoundly than intended. First of all, investment management firms already have employees tasked with managing all portfolio risks: the portfolio managers. For the new liquidity risk review to have any meaning, it must require some kind of reporting or oversight to a board-approved group outside of the portfolio managers and their direct supervisors (who already have responsibility for this and other risks). These new reviewers, focused solely on liquidity risk, will also have a narrower and more conservative objective than the portfolio managers: as long as they are comfortable that a fund will be liquid in "reasonably foreseeable stressed conditions," they may have no particular interest in other aspects of risk and return. Moreover, every liquidity risk committee in the industry will have the same objectives. In contrast, the portfolio managers will continue to have responsibility for managing their portfolios in accordance with shareholder expectations, which include many elements: remaining invested in the fund's principal investment strategy, striving to match or beat their benchmarks (and their peers) by investment selection. By giving greater weight to the one dimension of liquidity risk, the rule may have the effect of inducing both greater conservatism and less diversity in portfolio management.

In addition, liquidity oversight of mutual fund portfolios may do little to prevent or soften the impact of dramatic market events. To be fair, the SEC has not claimed that the new rules will make markets or funds safe from downturns; it only seeks to protect mutual fund investors from unfair treatment and to avoid having mutual funds contribute to market contagions. But the presence of a committee assessing "reasonably foreseeable stressed conditions" may nevertheless lead to some false sense of comfort.

The reason the sense of comfort is false is that dramatic market events are not "reasonably foreseeable." Or to put it differently, these events occur when market participants collectively ignore warning signals, even though they have money at risk and the greatest incentive to pay attention. Assembling a committee of non-portfolio managers is not likely to change that human dynamic, even when there are strong hints. Alan Greenspan's famous 1996 warning about the stock market's "irrational exuberance" was conspicuously ignored for five years until the NASDAQ index nevertheless crossed 5000—it then fell about 75 percent. In the run-up to the 2008 financial crisis, the most secure tranches of subprime asset backed securities received top ratings from agencies such as Standard & Poors and Moodys, and were widely held in investment grade portfolios of mutual funds and institutionally managed private accounts. Evidently, the subprime securities' 2007 decline did not serve as much of a warning to stockholders in Bear Stearns or Lehman Brothers, publicly traded US brokerage houses that collapsed in dramatic fashion the following year, due to uncertainty about their proprietary subprime holdings. Nor did investors exit AIG, with its exposure to mortgage related credit default swaps, until its collapse was averted by the US Treasury.

Perhaps I will be wrong about this, and mutual fund liquidity risk committees will have great success forecasting the magnitude and sensitivities of future liquidity stresses. I hope so. But until more data appear, the new rules will have to be considered the experiment that they are.

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NOTES

1. 17 C.F.R. 270.22e-4; *Investment Company Liquidity Risk Management Programs*, SEC Release IC-32315 (Oct. 13, 2016)(Adopting Release).
2. Adopting Release, pp.27–34 (describing policy objectives).
3. For detailed analysis of the rules, *see, e.g.*, J. Puretz, et al., "Interpretive and Other Challenges to Liquidity Classification under the SEC's New Liquidity Risk Management Rule," *The Investment Lawyer*, vol. 24, no. 7, July 2017; J. Bourgeois, et al., "Liquidity Risk Management and Swing Pricing: The SEC's New Rule and Rule Amendments," *The Investment Lawyer*, vol. 24, no. 2, Feb. 2017.
4. For example, the SEC's Division of Economic and Risk Analysis recently grouped bond market liquidity measures into three categories: trading activity (*e.g.*, trading volume, turnover), transaction costs (various price impact measures) and liquidity supply (*e.g.*, dealer inventory, trade sizes). DERA Report, "Access to Capital and Liquidity," Aug. 2017, p. 97.
5. Investment Company Act Section 22(e) and Rules 22c-1(b), 22e-2 (15 USC 80a-22(e); 17 C.F.R. 270.22c-1(b), 270.22e-2).
6. *Third Avenue Trust [et al.],* SEC Release No. IC-31943 (Dec. 16, 2015).
7. *Id.* at 4.
8. *Id.* at 6.
9. *Id.* at 7.
10. *In the Matter of Evergreen Investment Management Company, LLC, et al.*, SEC Release IC- 28759, at 2 (June 8, 2009).

[11] *Ibid*.

[12] Investment Company Act Rule 2a-4(a)(1), 17 C.F.R. 270.2a-4(a)(1).

[13] Investment Company Act Rule 22c-1(b), 17 C.F.R.270.22c-1(b).

[14] Investment Company Act Rule 22c-1(a), 17 C.F.R.270.22c-1(a).

[15] 15 USC 80a-2(a)(41); 17 C.F.R 270.2a-4.

[16] For a summary of concerns raised by market timing, *see, e.g.*, *Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings,* SEC Release IC-26287, 68 F.R. No. 242 at pp.70402-70405 (Dec. 17, 2003) (Market Timing Proposing Release).

[17] SEC Interpretive Letters to Investment Company Institute (publicly available Dec. 8, 1999 and Apr. 30, 2001).

[18] *See* n.6, *supra*.

[19] *Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Securities*, SEC Release IC-26418, 69 F. R. No. 79, p. 22300 (April 23, 2004).

[20] *Mutual Fund Redemption Fees*, SEC Release No. IC-26782, 70 F.R. No 52, p. 13328 (March 18, 2005); 17 C.F.R. 270.22c-2.

[21] SEC Release IC-26287, 68 F.R. No. 242, at n 9.

[22] *Compliance Programs of Investment Companies and Investment Advisers*, 68 F.R. No. 247, p. 74714 (Dec.24, 2003); 17 C.F.R. 270.38a-1.

[23] *Revision of Guidelines to Form N-1A,* Investment Company Act Release No. 18612 (Mar. 12, 1992), 57 FR 9828-9.

[24] *Ibid*.

[25] *Ibid*.

[26] *See generally*, "Report of Financial Crisis Inquiry Commission," Jan. 27, 2011, Chapter 20, pp. 356-359.

[27] *Money Market Fund Reform*, SEC Release IC-29132, 75 F.R. No 42, p. 10060 (Mar. 4, 2010)(amending Investment Company Act Rule 2a-7 to tighten credit quality, maturity, liquidity and repurchase agreement collateralization standards for money market funds); *Money Market Fund Reform; Amendments to Form PF*, SEC Release IC-31166, 79 F.R. No. 157, p. 47736 (Aug. 14, 2014) (requiring institutional prime money market funds to use floating NAVs; requiring certain other money funds to impose redemption fees under certain circumstances; among other reforms).

[28] The primary issue before the FSOC was whether to designate particular investment managers or mutual funds (or other pooled vehicles) as systemically important financial institutions (SIFIs), subject to special review like that of the biggest banks and Wall Street investment banks. The industry sought to draw a sharp distinction between its business model and that of the banks. Investment management firms simply provide professional services for their clients—they do not take on their clients' investment risk. And long-term mutual funds are unlike banks in that they do not (with few exceptions) take on leverage, they are not viewed as cash equivalents by their owners and they allow investment risk to be spread out among many shareholders rather than concentrated on bank balance sheets.

[29] Financial Stability Oversight Council, "Update on Review of Asset Management Products and Activities," Apr. 18, 2016, pp. 4–5. More recently, the Trump administration has directed the Treasury Secretary to review the FSOC's process for designating SIFIs. "Presidential Memorandum for the Secretary of the Treasury," Apr. 21, 2017.

[30] *Id*., pp. 7–9.

[31] *Id*., p. 13.

[32] Adopting Release, p. 27.

[33] *Id*., pp. 32–34.

[34] The SEC Staff observed that some funds have "more thorough liquidity risk management practices" but remained "concerned that some funds employ liquidity risk management practices that are substantially less rigorous." Adopting Release, p. 40.

[35] Investment Company Institute, 2017 Investment Company Fact Book, Figure 1.13.

[36] Investment Company Act Section 5(b), 15 USC s. 80a-5(b).

[37] Investment Act Section 13(a)(3), 15 USC s. 80a-13(a)(3).

[38] 17 C.F.R. 270.35d-1.

[39] Investment Act Sections 12(a), 13(a)(2), 18(f); 15 USC sections. 80a-12(a), 80a-13(a)(2), 80a-18(f).

40 For a broader discussion of issues raised by these requirements, *see* Puretz, *supra*, n.3.

41 Adopting Release, p. 32; n.85, and accompanying text.

42 *Id*. at 336; n.1088 and accompanying text.

43 *Id*. at p. 374.

44 "Liquidity and Flows of US Mutual Funds," P. Hanona, et al., Sept. 2015 (DERA Study), p. 46. The authors reach an analogous conclusion with respect to US municipal bond funds, inferred from observations of noncash holdings rather than transaction costs. For example, a 1 percent outflow from a municipal bond fund with an "average municipal holdings percentage" increases the percentage of the portfolio in municipal bonds by 4.5 basis points. While I grant that this is only an average, and individual cases could be more extreme, the order of magnitude is very small. It implies that redemptions on the order of 20 percent would be needed to reduce the portfolio's cash balance by 1 percent. Moreover, it is a weaker conclusion than for equity funds, in my view, because while municipal bonds are undoubtedly less liquid than cash, the authors do not attempt to measure the change in the liquidity of the municipal bonds themselves.

45 Adopting Release, p. 334; n.1085 and accompanying text.

46 *Id*. at 320; n.1037 and accompanying text, citing an unpublished working paper "Dynamic Liquidity Management by Corporate Bond Mutual Funds," Hao, J. *et al*. (May 6, 2016).

47 *Id*. at 335; n.1087. The studies are Joshua Coval and Erik Stafford, "Asset Fire Sales (and Purchases) in Equity Markets," 86 *J. Fin. Econ*. 479 (2007); and Teodor Dyakov and Marno Verbeek, "Front-Running of Mutual Fund Fire-Sales," 37 *J. Of Bank. and Fin*. 4931 (2013) (Dyakov).

48 Dyakov, *supra*, n.42, at p. 14.

49 *Id*. at pp. 12–15, 19.

50 *See, e.g.*, "Mutual Funds and Systemic Risk," Report by Strategic Insight, p. 28 (accompanying letter of Avi Nachmany to the Financial Stability Oversight Council, Mar. 23, 2015) (event study concluding that "the mutual fund industry never experienced the harmonized and sizeable redemption behavior associated with the "Herding theory and its implied systemic risk"); Gaston Gelos, "International Monetary Fund, Capital Flow Volatility, and Contagion - A Survey, IMF Working Paper," at p. 18 (2011) (finding "some evidence for herding" in international mutual funds, but that "its quantitative importance is not fully clear. Clearly, funds do not all move together in the same ways.").

51 Adopting Release, pp. 347–348.

52 *Id*. p. 349.

53 *Ibid*.

54 Adopting Release, p. 356.

55 Global Financial Markets Liquidity Study, Aug. 2015, PwC, p. 35.

56 *Id*. at p. 50.

57 Investment Company Institute, 2017 Mutual Fund Fact Book, pp. 204–205.

58 *Id*. at p. 210.

59 17 C.F.R. 270.22e4(a)(6), (8), (10), (12).

60 17 C.F.R. 270.22e-4(b)(1)(i)(A).