Overview and Timeline

On September 22, 2015, the US Securities and Exchange Commission (SEC) released a 415-page document—Investment Company Act Release No. 31835—that proposed “…rules and forms designed to promote effective liquidity risk management throughout the open-end fund industry, thereby reducing the risk that funds will be unable to meet redemption obligations and mitigating dilution of the interests of fund shareholders…” 1

A yearlong consultation period ensued, during which the SEC received more than 70 comment letters. Western Asset participated in a number of industry groups’ discussions and responses, including those of the Investment Company Institute (ICI), the Securities Industry and Financial Markets Association (SIFMA), and the Buy Side Risk Managers Forum of the Global Association of Risk Professionals (GARP).

On October 13, 2016, the SEC published a 459-page adopting release for Rule 22e-4 (the “Final Rule”), which “requires each registered open-end management investment company, including open-end exchange-traded funds (ETFs) but not including money market funds, to establish a liquidity risk management program.” 2 Other requirements, primarily related to reporting and disclosure, were also set forth.

On December 1, 2018, the new rules, reporting and procedural requirements will go into effect for “larger entities,” specifically those in a complex with assets of $1 billion or more. 3

In some cases, such as changes in US money market funds that came fully into effect in October 2016, SEC rule changes cause massive realignments of markets. 4 Western Asset does not foresee a comparable turnover of mutual fund holdings as a result of the Final Rule’s initial implementation. In fact, we do not anticipate any forced turnover at all for most funds. 5

While the new rules might not make much discernible difference in the capital markets, the operational, administrative and governance structure that they require will involve wide-ranging changes. These will entail significant effort and coordination between funds, advisers, sub-advisers and other service providers.

Western Asset has been active in preparing for the implementation of this rule. In this note, we describe the current situation and what we expect to happen going forward.

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1 https://www.sec.gov/rules/proposed/2015/33-9922.pdf, Summary  
2 https://www.sec.gov/rules/final/2016/33-10233.pdf, Summary. We will refer to this publication as the “Final Rule.”  
3 Final Rule, Section III.M  
4 “As a result of the [money market] reform, more than $1 trillion has left prime and tax-exempt funds, with government funds proving the main beneficiary, increasing their assets from $1 trillion at the start of the year to $2.1tn on October 12 [2016].” Financial Times, October 14, 2016.  
5 Depending on how the Final Rule is interpreted and implemented, some funds whose purpose is to invest in less liquid asset classes like micro-cap stocks and the lower end of the high-yield bond and loan spectrum may have to make some changes.
Liquidity Risk Management
A key goal of the financial industry is to allow individuals to pool their risk-taking activities. For example, it would be impractical for an individual to self-insure his or her house against fires, floods, tornados and earthquakes, but insurance companies routinely provide homeowner's insurance by aggregating large groups of homeowners.

Similarly, collective investment vehicles provide individuals with the ability to take risks as part of the collective that they would not be able to take on their own. Liquidity is one such risk. A well-managed fund is able to reap some liquidity premium while still providing redemptions and subscriptions to individuals on a time scale that is far shorter than the trading horizon of its least liquid investments. But if a collective vehicle is not properly managed, onerous liquidity costs can paradoxically end up being charged to participants who are providing liquidity rather than using it.

Investment management involves a careful balancing of risk and reward. In the first paragraph of this paper, we quoted the SEC's stated purpose in promulgating liquidity risk rules. That statement of purpose focuses only on liquidity risk and not at all on reward. This indicates a regulatory desire to shift the balance toward risk mitigation and away from reward with regard to this particular type of risk.

Because of its importance to the overall activity of managing portfolios, liquidity risk management was practiced by most investment managers before the SEC's recent activities. For example, Western Asset discussed its liquidity risk management framework in a 2015 white paper, "Quantifying Bond Market Liquidity." In that paper, we note that "the information required to produce an accurate estimate of costs for a trade that has not yet occurred is simply not available—the markets are too variable and the data are too sparse." We maintain that "trying to predict fixed-income liquidity costs definitively is simply not possible. We might come up with a number, but it would be a misleading level of false precision."

Western Asset's approach uses characteristics of securities, but not their current trading volume, to quantify relative liquidity. A volume-based approach can be procyclical: in a bad market, securities previously thought to be liquid can become illiquid, forcing sales and making the market worse. Similarly, in a good market, otherwise questionable securities can look like reasonable, encouraging buys, making the eventual correction worse.

Our approach has allowed us to identify funds that could be challenged under difficult conditions while avoiding procyclical behavior. This in turn has allowed us to focus on implementing liquidity mitigation techniques in some funds, such as holding some cash which is securitized via highly liquid derivatives into the fund's asset class.

The New Regulatory Requirements
The Final Rule requires each fund to adopt a liquidity risk management program that requires it to assess, manage and periodically review liquidity risk. Fund boards are required to approve the program, designate someone to administer it, and review a written report at least annually that addresses the adequacy and effectiveness of the program and any material changes to the program.

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6 Other recent Western Asset white papers on liquidity include "Analyzing Credit Market Liquidity" by Thomas McMahon (April, 2015) and "Q&A: Liquidity in the Fixed-Income Market" by Michael Buchanan (July 2015).
A key part of the new Rule is a requirement to classify investments in a mutual fund into four categories.\(^7\)

### Exhibit 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highly Liquid</strong></td>
<td>Cash and “investments that the fund reasonably expects to be convertible to cash in current market conditions in three business days or less without the conversion to cash significantly changing the market value of the investment.”</td>
</tr>
<tr>
<td><strong>Moderately Liquid</strong></td>
<td>“Investments the fund reasonably expects to be convertible into cash in current market conditions in more than three calendar days, but in seven calendar days or less without the conversion to cash significantly changing the market value of the investment.”</td>
</tr>
<tr>
<td><strong>Less Liquid</strong></td>
<td>“Investments that the fund reasonably expects to be able to sell or dispose of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment, but where the sale or disposition is reasonably expected to settle in more than seven calendar days.”</td>
</tr>
<tr>
<td><strong>Illiquid</strong></td>
<td>“Investments that a fund reasonably expects cannot be sold or disposed of in current market conditions in seven calendar days or less without the sale or disposition significantly changing the market value of the investment.”</td>
</tr>
</tbody>
</table>

Funds will be required to keep on hand a minimum amount of highly liquid securities, while simultaneously limiting their exposure to illiquid securities.\(^8\) The highly liquid minimum will be set by the fund’s board, while the illiquid maximum is fixed by the SEC at 15% of a fund’s net assets.

In an effort to avoid some procyclicality, the Final Rule requires only that new purchases of illiquid securities be suspended if the illiquid amount goes over 15%. However, funds must engage in increased scrutiny and reporting during a period in which the illiquid percentage has (passively) gone over 15% of a fund’s net assets.

The SEC also adopted a companion requirement called Form N-PORT, which requires each mutual fund to report classifications for each holding and aggregate liquidity classification information, among other things, to the SEC on a monthly basis within 30 days of each month-end. The SEC will make aggregate liquidity classification information for each category within 60 days of each fiscal quarter-end. The liquidity classifications for each holding will not be publicly disclosed.

### Classification Challenges

To determine liquidity classifications, the SEC will require funds to take into account “relevant market, trading, and investment-specific considerations.” It is not entirely clear what this will mean in practice.

The original proposal contained a very specific list of nine factors to be taken into consideration. These included “existence of an active market for the asset,” “bid-ask spread for the asset,” and other measures. In response to comments, this recipe-based approach was rejected with the observation “Unlike rule 22e-4 as proposed, final rule 22e-4 does not include an enumerated list of factors that a fund would be specifically required to consider in classifying and reviewing the liquidity of its portfolio investments.”\(^9\)

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\(^7\) See Final Rule, Section III.C.2.

\(^8\) Exchange traded funds and funds that primarily hold highly liquid investments are not required to set a highly liquid minimum. The Final Rule also exempts exchange traded funds from classifying investments by liquidity category if they permit in-kind redemptions.

\(^9\) See Final Rule, Section III.C.4.
After rejecting the specific list of factors from the original proposal and appearing to endorse a principles-based approach, however, the Final Rule goes on to enumerate and discuss these factors in detail. In effect, the language states, “we think these factors are good, but after reading the comments we realize they could also be bad, but we think they should be considered.” The end result is a murky combination of a principles-based approach and a prescriptive approach. It is unclear at this point whether the SEC examination and enforcement staff will view the factors as a checklist or merely as suggestions. Of course, this presents a degree of regulatory risk for a mutual fund as it develops its classification methodology.

Another challenge is that the Final Rule is written in terms of monitoring liquidity risk on an ongoing basis. Does that mean that liquidity levels need to be adjusted daily or even more often as market conditions change? Leaving aside the logistical nightmare, such frequent changes would tend to cause procyclical liquidity booms and busts. We expect that over time, the SEC will clarify what are acceptable and reasonable interpretations of the Final Rule and the industry will gravitate toward common best practices.

More challenges arise from the “market depth” requirement, which mandates that a fund “determine whether trading varying portions of a position in a particular portfolio investment, in sizes that the fund would reasonably anticipate trading, is reasonably expected to significantly affect the liquidity characteristics of that investment.” This portion of the Final Rule contemplates an interaction between a liquidity assessment process and the fund’s anticipated trading strategy that may lead to some complicated logistics in practice.

Swing Pricing
In addition to the liquidity classification, governance and reporting requirements, the SEC also adopted amendments to Rule 22c-1 to permit swing pricing in mutual funds, which it notes is “the process of adjusting the fund’s net asset value (NAV) per share to effectively pass on the costs stemming from shareholder purchase or redemption activity to the shareholders associated with that activity.”

Western Asset co-led a group that produced a comment letter to the SEC on swing pricing. Like other commenters, we supported the goals of swing pricing. However, we also noted that there are significant operational challenges that “will likely impede the broad adoption of swing pricing by US open-end mutual funds without material changes to the existing mutual-fund-related infrastructure.” We urged further work by the infrastructure providers in the financial industry to make swing pricing realistic in the US.

We are hopeful that developments such as the adoption of blockchain will modernize the US mutual fund infrastructure to the point where swing pricing is feasible. We do not see that as imminent, but welcome discussions on adoption with our mutual fund clients when swing pricing becomes a viable option.

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10 Final Rule, Section III.C.3.b.

What Is Swing Pricing?
Swing pricing is implemented if a fund’s net inflows or outflows exceed a preset level as determined by the fund provider. In all instances, the provider calculates the NAV as normal before adjusting it by the designated swing factor.

Here’s a simple example: XYZ Fund has a price of $20 per share and the fund’s provider sets a swing factor of 0.1% of the NAV for net flows above or below 5% of the prior day’s price. If the fund experiences a net inflow of 10% of NAV, the price of the fund would be adjusted upward to $20.02 ($20 + ($20 * 0.1%)). The same situation would occur with a 10% outflow except that the price would be adjusted downward to $19.98. If a net flow of less than 10% occurs, swing pricing is not implemented and the fund’s price remains at $20.

Credit Ratings and Liquidity Ratings

In some ways, the contemplated use of liquidity ratings is like the existing use of credit ratings for compliance purposes. Nationally recognized statistical rating organizations (NRSROs)—such as Standard & Poor’s, Moody’s, Fitch and others—provide credit ratings. They don’t necessarily agree with each other. Further, any sub-adviser may have its own research indicating that a company is better off, or worse off, than a credit ratings agency determines. At Western Asset, we use our research and internal analysis to seek superior returns.

However, our opinion doesn’t matter for compliance purposes. If Western Asset clients have guidelines that restrict investments to certain percentages of investment-grade or high-yield securities, we use the agencies’ ratings.

Similarly, a number of vendors are now offering liquidity risk assessment products intended to help mutual fund advisers comply with the new mandate. Given the requirements of the Final Rule and without further guidance, it seems possible that Western Asset will need to obtain and use data from each of our mutual fund clients’ chosen vendor services for compliance purposes. It is also possible that mutual funds with the same vendor may have different classifications for the same or similar holdings. Vendor services will likely permit mutual funds to pick their own settings and tolerances, particularly with respect to classification changes as market conditions change.

Just as with credit ratings, we can and will continue to use our liquidity opinions for active management—reaping a liquidity premium or avoiding an overrated problem—while staying within the compliance limits required by the regulation. Also like credit ratings, different liquidity rating vendors may not agree with each other. We suspect that over time, vendor liquidity ratings agencies may coalesce into a small group with similar approaches, as have NRSROs.

There are, however, some flaws in the credit rating analogy. As we pointed out earlier in the Classification Challenges section, liquidity ratings seem to be intended to be more dynamic and context-dependent than credit ratings. That means that there will need to be much more interaction with liquidity vendors than with credit rating vendors, who publish an issuer/issue rating that is the same for everyone using that rating.

Further, most of these vendors have indicated that they would like more time to fully develop their solutions across all asset classes. Mutual funds will also need time to evaluate the products to select and implement their vendor of choice, and to consult with mutual fund boards.

Whether the work of mutual fund managers, advisers and vendors to comply with the Rule will have a direct impact on the day-to-day liquidity risk decisions made by sub-advisers remains to be seen. Sub-advisers will likely continue to maintain their own internal liquidity risk frameworks to make investment decisions while mutual fund managers will rely on their governance and administrative frameworks to address the Rule’s compliance requirements. Close coordination will be required to address the places where those two objectives overlap and intersect.

Looking Ahead

Western Asset is actively working with many of our mutual fund clients already to address SEC Rule 22e-4. While December 2018 may seem far away, implementing data feeds, compliance procedures, and board education and governance procedures will easily fill this time. In fact, there are some industry groups that are trying to get the SEC to delay implementation in order to have more time for clarification and logistics, but the prospects for a delay or additional guidance are uncertain. Clearly, implementation by the Decem-

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13 There were ten such organizations recognized by the SEC as of December 2016. https://www.sec.gov/ocr/ocr-current-nrsros.html.
ber 2018 deadline will require a significant degree of cooperation and coordination among mutual funds, advisers, sub-advisers, boards of directors and vendors. We look forward to working with our mutual fund clients to address these issues as implementation gets closer.