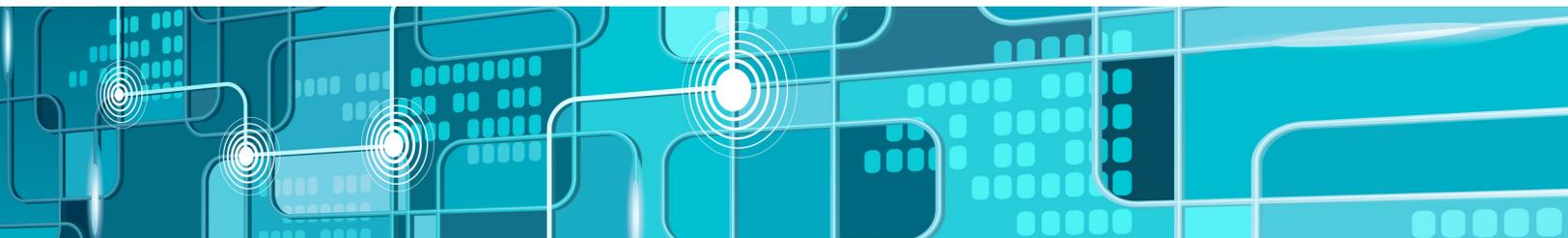


Money Market Fund Reform—Final Rule Implementation

Technology Readiness for Four-Decimal Floating Net Asset Value Money Market Funds



Introduction

Among the challenges of implementing revised money market fund final rules for prime institutional and tax-exempt money market funds is the required use of “basis point” pricing as well as a floating net asset value (NAV), for both transaction and shareholder account valuation purposes. For funds targeting a \$1.00 per-share NAV, this requires pricing to be extended from two to four decimal places (i.e., \$1.0000)¹ and means the NAV could calculate at a value other than \$1.0000. Applicable funds must be able to support this capability no later than the final rule’s effective date of October 14, 2016.²

Both the expanded NAV, calculated to 1/100th of a cent, and the fact that money market fund NAVs can fluctuate, are new operating paradigms that must be accommodated. For this reason, a subgroup of the ICI MMF Reform Working Group on Four-Decimal NAV Calculation was convened and provided input on this document to assist funds and intermediaries in assessing and remediating affected systems, data files, and processes with a move to a four-decimal, floating NAV.

General Guidance

Evaluation and Impact Assessment

Funds and intermediaries considering floating NAV money market funds should immediately begin to evaluate systems, files, and processes for four-decimal floating NAV impact. The following questions can help guide the analysis:

- » What systems, files, and processes are required to support floating NAV money market funds, and therefore may need to produce, use, and/or store a four-decimal NAV?
 - How do these systems produce, use, and/or store a four-decimal NAV today?
 - What system changes would be required to **produce, use, and/or store** a four-decimal NAV for floating NAV money market funds in the future?
 - What internal and external parties will be affected by these changes?
 - How is our organization affected by these changes?

¹ Alternatively, floating NAV money market funds could adopt a target price of \$10.000 or \$100.000 per share and still achieve the “basis point” pricing precision required by the final amendments. Feedback received from industry stakeholders indicate that most fund complexes that plan to offer floating NAV money market funds intend to adopt a target price of \$1.0000 per share.

² Final reforms require **all** money market funds to disclose six months of daily “shadow” NAVs, calculated to four decimal places, on fund websites by April 14, 2016. To disclose six months of daily shadow NAVs beginning April 14, 2016, funds should calculate and save daily shadow NAVs to four decimal places beginning October 14, 2015.

- » Where, when, and to whom will we need to **communicate** or **receive communication** about a four-decimal NAV?
 - How and with whom do we communicate NAVs today?
 - What system changes would be required to communicate or receive a four-decimal NAV for floating NAV money market funds in the future?
 - Are there new recipients/destinations for a four-decimal NAV, as a result of new reporting and/or disclosure requirements?
 - Are there new recipients/destinations for a four-decimal NAV, because the NAV can now float/no longer assumed to be constant?
 - Do existing processes require modification beyond accommodating a four-decimal NAV (e.g., money market fund files communicating shares only may now require both a four-decimal NAV *and* a separate field for dollars)?

Funds, intermediaries, and service providers will determine—during the assessment process—the systems’ impact to their organizations. Creating an inventory of systems, databases, files, and processes that are identified will facilitate the remediation process that follows. In all instances, each organization must ensure that proper remediation occurs. However, the role that parties take in the remediation process may vary. The following general guidance is provided to help manage remediation in a variety of arrangements.

Remediation

Systems, files, and processes that are affected by a four-decimal floating NAV should be documented and tracked for remediation purposes. Although the final rule’s effective date is October 14, 2016, for transaction processing and shareholder account valuation purposes, sufficient time must be given to ensure readiness to support a four-decimal NAV by this date.

Once the systems, databases, files, and processes impacted have been documented, a remediation strategy must be determined for each. Remediation planning may be facilitated by determining who “owns” the affected system or process.

- » The fund or intermediary **owns** its software, database, file, or process and is responsible for performing changes (e.g., proprietary system).
- » The organization has **purchased a license** to use software, a database, or a file. Some licenses may require the organization to submit change requests through the provider, while other licenses may permit the organization to change their copy of the application or database.
- » The organization **leases** its use of software, database, or a file through a third party. The third party often hosts the applications in an application service provider (ASP)³ arrangement. In those situations, the third party typically requires the organization to submit change requests through the provider. Examples of third-party funds and intermediaries in this category may include transfer agents, fund accountants, and subaccounting agents.
- » The fund or intermediary **subscribes to a service** (e.g., iMoneyNet, Lipper, Crane, VMS) providing data that includes NAV. Providers must include a four-decimal NAV for applicable funds in a mutually agreeable format (e.g., electronic, hard copy).

³ Application service providers (ASPs) provide computer applications and related services to customers over a network, such as the Internet, other proprietary (e.g., point-to-point) networks, or some combination thereof.

- » The fund or intermediary **receives files or data** from an external party that must be remediated. In these situations, the organization must coordinate with external parties.

When a fund or intermediary is responsible for making a system change (e.g., modifying proprietary systems or licensed software), they will often use their system development lifecycle (SDLC) methodology to guide the change process. While not an exhaustive list, these are some things to consider as part of the process:

- » Document the remediation plan for each affected system, database, file, or process, including anticipated timeline for completion
- » Communicate to and gain support for the plan from key stakeholders, both internal/external to the organization
- » Develop appropriate specifications for system changes to produce, use, communicate, and/or store an expanded NAV and communicate to key stakeholders, as appropriate:
 - Computer code updates
 - Data storage updates
 - New or updated file layouts
 - Updated data transmissions
- » Construct and execute appropriate testing plans to validate that changes are completed as expected
- » Provide key stakeholders (both internal and external to the organization) with sufficient details so they can also construct testing plans and sufficient time to complete acceptance testing of the changes that affect their operation⁴
- » Coordinate implementation into the live or production environments

Key stakeholders should be consulted on the remediation plan developed, to ensure that the plan is responsive to their business needs and so those stakeholders may, in turn, prepare to support floating NAV money market funds.

When a fund or intermediary is relying on others to make a system change (e.g., modifying licensed or third-party software, receiving files or data from external parties), the organization's role may shift in some instances to more oversight of the change process, although the fund or intermediary will want to ensure that proper communication, acceptance testing, and timely implementation is occurring. The following considerations can assist funds and intermediaries in this situation:

- » The fund or intermediary needs to communicate its change requests expeditiously, working with the provider on the proper method or approach to do so.
 - In some instances, owners of the system, file, or process may have already conveyed their remediation plans.
 - Any remediation plan from the provider should be vetted by the fund or intermediary to meet business needs, working through any gaps in the plan with the provider.

⁴ For instance, a fund accounting provider may alter a file provided to its customers to communicate the four-decimal NAV. The customers should receive sufficient details to construct their testing plans and verify the successful implementation of the changes, as documented by the fund accounting provider.

- » Funds and intermediaries will need to identify and understand their role in acceptance testing of the provider’s changes, prior to those changes being implemented in the live or production environment.
- » The provider’s remediation plan can, in turn, create downstream impacts for funds and intermediaries when addressing key stakeholder concerns.⁵ In such cases, the third-party remediation plan will affect the overall remediation plan for the fund or intermediary with its key stakeholders.

Additional Consideration—Communication of Four-Decimal NAV

The constant \$1.00 per share money market fund NAV has allowed certain operational practices to develop independently and without communication of money market fund NAVs, both within fund organizations and from funds to intermediaries and other stakeholders (e.g., shareholder confirmations and statements). However, with the advent of a floating NAV, these practices will need to change. The changes may include a modification to current communication methods to accommodate the four-decimal NAV,⁶ or it may also include new communication approaches for key stakeholders. By asking the questions previously presented in the Evaluation and Impact Assessment section, funds and intermediaries should identify the key stakeholders that will require communication of floating NAVs. Once identified, the remediation plan for these communications can be constructed, reviewed with key stakeholders, and implemented with other system, database, file, and process changes associated with the use of a four-decimal NAV.



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⁵ For instance, the four-decimal NAV change by a fund accounting provider described in the previous footnote is required by the fund to support a custom file it builds and sends to a key stakeholder.

⁶ For example, many mutual funds disseminate floating NAVs for long-term funds through the Mutual Fund Profile Price/Rate service (also known as MFPS I) at the National Securities Clearing Corporation (NSCC). They often omit sending money market fund NAVs. While MFPS I currently supports the passing of a four-decimal NAV, rules or system changes may be necessary for the money market fund to send its floating NAV to MFPS I for dissemination.