

Understanding variable net asset value (VNAV) money market funds (MMFs)

New European MMF rules provide investors with a broader set of options for managing their short-term cash.

Short-term government—or public debt—MMFs can still provide investors with a constant net asset value (CNAV), while credit MMFs will offer either a new low-volatility net asset value (LVNAV) or a variable net asset value (VNAV) approach.

LOOK BENEATH THE WRAPPER

Short-term VNAV funds can be managed in a similar way to CNAV or LVNAV funds, and can also carry a AAA rating. However, there are differences in the pricing of underlying investments and the calculation of the dealing NAV.

- **Pricing of underlying investments:** While CNAV and LVNAV funds use amortised cost accounting to value most or all of their assets, VNAV funds use mark-to-market pricing.
- **Dealing NAV calculation:** Dealing prices for VNAV funds are rounded to four decimal places, while CNAV and LVNAV funds can round to two decimal places.

CHARACTERISTICS OF VNAV MMFs

- Limited NAV volatility in normal markets
- No trigger-based fees and gates
- Can carry a AAA rating

The above three points apply to short-term conservatively managed funds.

EXHIBIT 1: COMPARISON OF SHORT-TERM CNAV, LVNAV AND VNAV FUNDS

	Government (public debt) CNAV	LVNAV	VNAV
WAM ¹ (max)	60 days	60 days	60 days
WAL ² (max)	120 days	120 days	120 days
Maturity (max)	397 days	397 days	397 days
Daily liquid assets (min)	10%	10%	7.5%
Weekly liquid assets (min)	30%	30%	15%
Dealing NAV	Two decimals (provided NAV deviates <50 bps)	Two decimals (provided NAV deviates <20 bps)	Four decimals
Valuation	Amortised cost	Amortised cost for instruments ≤75 days; mark-to-market for instruments >75 days	Mark-to-market

VNAV MMFs price their assets using market pricing and therefore offer a fluctuating dealing NAV

Source: J.P. Morgan Asset Management, Proposal for a Regulation of the European Parliament and of the Council of Money Market Funds, as of 30 November 2016.

These differences mean that VNAV funds can experience movements in their NAV. It's therefore important for VNAV investors to look carefully at a fund's underlying investment portfolio and examine its risk-return profile to understand the potential NAV volatility. Examining an existing CNAV short-term MMF's shadow market pricing could provide an indication of the level of volatility you might expect in a VNAV short-term MMF.

ALIGNING FUNDS WITH BEST PRACTICE

Investors looking for conservatively managed VNAV funds may seek out managers who focus on the best practices of responsible MMF management:

- **Pricing:** Assets are priced using recognised independent sources rather than portfolio manager-driven internal models.
- **Leverage:** Liquidity is maintained by investing in genuinely liquid instruments, such as government paper, short-dated deposits and overnight reverse repurchase agreements with a diversified set of counterparties, as opposed to synthetically deriving liquidity through the use of leverage.
- **Liquidity:** Portfolios are managed so that they always carry sufficient liquidity to meet investor expectations.
- **Cross-investments:** Cross-investment into other less liquid money market funds is avoided.

¹ Weighted average maturity (WAM) is a basic measure of an MMF's maturity profile. A portfolio's WAM is calculated by multiplying each security's percentage of the total of the portfolio by its interest reset date, and then summing these numbers.

² Weighted average life (WAL) reflects a portfolio's reaction to deteriorating credit or tightening liquidity conditions. WAL is calculated based on a security's final maturity date, or the date of the next demand feature when the investing fund may receive payment of principal and interest.

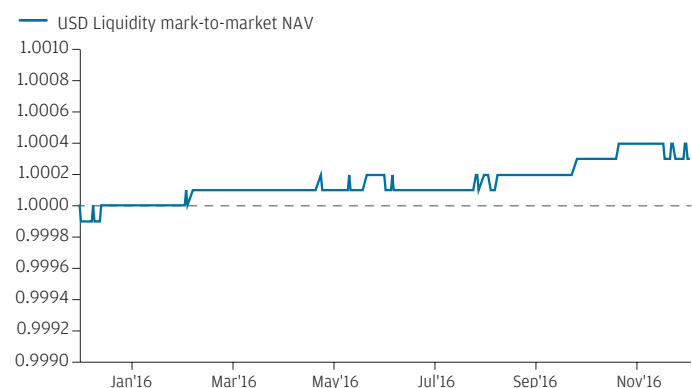
FOCUS ON RISK MANAGEMENT AND CREDIT ANALYSIS

MMF share values have generally remained stable since 2010 despite volatile market conditions. This is partly because strict regulatory requirements ensure funds hold very short-term, high-quality securities, with a maximum weighted average maturity of 60 days, a maximum weighted average life of 120 days, and a maximum maturity of 397 days.

Maintaining the share price of VNAV funds within a narrow band also requires a rigorous focus on risk management and credit analysis, and a strong alignment of the fund manager's interests with those of investors.

J.P. Morgan Asset Management manages global liquidity funds with robust risk controls to maintain their market based NAVs within a narrow band.

EXHIBIT 2: ILLUSTRATIVE HISTORICAL MARK-TO-MARKET NAV MOVEMENT OF A US DOLLAR GLOBAL LIQUIDITY FUND MANAGED BY J.P. MORGAN ASSET MANAGEMENT



Source: J.P. Morgan Asset Management, 1 January 2016 to 31 December 2016. For illustrative purposes only. Past performance is not necessarily a reliable indicator of current and future performance.

WHAT DRIVES VNAV MOVEMENT?

Fluctuations in VNAV—above or below USD 1.0000—can be common, but have typically been small. These movements can be caused by:

- Changes in market interest rates
- Changes in credit spreads
- Material inflows and outflows
- Specific credit events

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