An Overview of S&P’s Local Government Investment Pool Ratings

LAMP Annual Meeting
October 25, 2019
S&P Global first rated Louisiana Asset Management Pool in 1995
Presentation Agenda

• Provide an overview of the S&P Global Fund Ratings group

• Explain the different methodologies for rating LGIPs

• Review recent trends in the industry
Overview of Standard & Poor’s Fund Ratings

• Standard & Poor’s has been rating fixed income funds since December 1983
• The Fund Ratings Group was officially formed in 1989
• Provides ratings and evaluations for over 500 “funds” globally, from over 175 fund sponsors:
  o **300+** Principal Stability Fund Ratings – Money Market Funds
  o **200+** Fund Credit Quality and Volatility Rated funds – Fixed Income Funds
  o Includes short duration, enhanced cash, and ETFs (Emerging Markets, High Yield, Preferred Shares)
  o Perform approximately 65 Liquidity Assessments
  o Rate **80+** Local Government Investment Pools in 25 states
**S&P Global Fund Ratings Team**

- S&P’s global fund ratings team is comprised of **20+ fund analysts in 5 countries** averaging 10+ years of fixed-income and fund ratings experience

- Having a global team gives us exposure to a wide range of regulatory regimes and geopolitical environments that affect portfolio positioning
  - **Regulatory**: Implementation of European Money Market Reform
  - **Political**: Continued uncertainty and chaos around Brexit
  - **Credit & Headline Risk**: Scandinavian money laundering investigations, the rise of Chinese and Middle Eastern banks as mainstream MMF investments

- This global perspective has led to a high degree of diversity in our ratings portfolio, in terms of management style, fund objective, and investment strategy
How does S&P analyze LGIPs like LAMP?
While ratings are not mandatory, GFOA recommends highly rated funds as investments for local & state governments. 

- Unlike mutual funds, LGIPs are not registered with the Securities and Exchange Commission

- This allows for greater flexibility in certain areas, but also reduces oversight

- Value proposition: fund ratings fill this gap by providing third party oversight and ongoing compliance monitoring with S&P criteria
LGIPs are rated under the same criteria as money market or bond funds, falling into one of two categories

1. Principal Stability Fund Ratings (PSFRs) – **LAMP has a PSFR rating**
   - Also known as **Money Market Fund Ratings** or Stable NAV Fund Ratings
   - Represented by ‘m’ suffix after the traditional rating symbology (AAAm)
   - Criteria Focus: fund’s **ability to maintain principal stability** and to limit exposure to principal losses due to credit risk

2. Fund Credit Quality & Fund Volatility Ratings (assigned together to bond funds)
   - Fund **Credit** Quality Ratings (FCQRs)
     - Criteria Focus: the **strength of the underlying portfolio credit quality**
     - Represented by ‘f’ suffix after the traditional rating symbology (AAAf)
     - Weighted average **credit quality with management assessment**
   - Fund **Volatility** Ratings (FVRs) compliment FCQRs
     - Represented by ‘S’ scale (S1, S2, etc.)
     - Criteria Focus: **return volatility** the fund’s **sensitivity to changing market conditions**
### Characteristics of typical LGIPs rated under each criteria

<table>
<thead>
<tr>
<th></th>
<th>PSFR</th>
<th>FCQR / FVR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAV</strong></td>
<td>Maintains <strong>Stable $1 NAV</strong></td>
<td><strong>Stable or floating NAV</strong></td>
</tr>
<tr>
<td><strong>WAM</strong></td>
<td><strong>60 day max WAM</strong></td>
<td><strong>Longer duration</strong> (ex. 1 – 3 year bond fund)</td>
</tr>
<tr>
<td><strong>Credit Quality</strong></td>
<td><strong>Highest Credit Quality</strong></td>
<td><strong>No minimum - Can take more credit risk</strong></td>
</tr>
<tr>
<td><strong>Portfolio type</strong></td>
<td><strong>“Money Market” portfolio</strong></td>
<td><strong>Ultrashort/Enhanced cash, or longer bond fund</strong></td>
</tr>
<tr>
<td><strong>Typical Investment Objectives</strong></td>
<td>Emphasis on safety of capital and high level of liquidity</td>
<td><strong>Competitive Yield</strong></td>
</tr>
</tbody>
</table>

*PSFR: Private Side Fund Registry (PSFR)*
*FCQR / FVR: Fund Credit Quality Rating / Fund Value Rating*
What is your approach to rating stable NAV LGIPs like LAMP?
The PSFR Criteria focuses on…

• A quantitative assessment of the portfolio’s assets
  • Types of securities
  • Overall credit quality of the portfolio
  • Risk limits established in the investment policy

• A qualitative review of the management team
  • Strengths & weaknesses in the portfolio management and credit research teams

• The processes and procedures in place to support the fund and foster effective risk management
  • Checks and balances in place?
  • Do policies and reporting lines promote a culture of strong compliance/oversight?
  • Is the manager’s risk appetite aligned with the funds objectives?
PSFR **Summary Framework**: Key Areas of Assessment

- **Credit Quality**
- **Diversification**
- **Maturity**
- **Net Asset Value (NAV) Stability**
- **Liquidity**

**Preliminary PSFR** (initial rating level)

- **Management – Experience**
- **Management – Breaches**
- **Management – Credit Research and Analysis**
- **Management – Stress Testing/Internal Controls**
- **Management – Pricing**

**Zero to Four Categories of Downward Adjustment**

**Final PSFR** (final rating level)

- **Quantitative**
- **Qualitative**
S&P Rating Approach: Generally rules based, reflective of, in some instances more restrictive than regulatory standards

- The quantitative metrics built into S&P criteria are reflective of broader underlying principals, which have been refined over more than 30 years of rating fixed income funds

- PSFR framework has many factors and each on its own and taken together are important drivers of principal stability and capital preservation

- Our basic belief = higher quality, shorter maturity assets are more liquid

- A diversified portfolio of liquid instruments = NAV stability (when supported by a strong management team)
Rated funds offer an additional layer of oversight beyond SEC 2a-7 regulations (2a-7 vs S&P criteria)

<table>
<thead>
<tr>
<th></th>
<th>Non Rated 2a/7</th>
<th>AAAm Rated</th>
<th>AAm Rated</th>
<th>Am Rated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maturity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max Fund WAM (R)/(F)</td>
<td>60/120 days</td>
<td>60/90* days</td>
<td>70/100* days</td>
<td>80/110* days</td>
</tr>
<tr>
<td>Max maturity per security (Floating - Government)</td>
<td>None</td>
<td>2 years</td>
<td>3 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Max maturity per security (Fixed &amp; Floating - Corp)</td>
<td>397 days</td>
<td>397 days</td>
<td>397 days</td>
<td>397 days</td>
</tr>
<tr>
<td>Credit Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min A-1+ and A1 (with less than 5 day maturity)</td>
<td>N/A</td>
<td>50%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>alternate HBC A1+Min ^</td>
<td>N/A</td>
<td>67%</td>
<td>50%</td>
<td>40%</td>
</tr>
<tr>
<td>Max A-1 allocation and A-2 O/N Repo</td>
<td>N/A</td>
<td>50%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>Maximum A-2 security allocation</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>alternate HBC A1 Max (and A-2 O/N Repo)^</td>
<td>N/A</td>
<td>33%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Pricing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Discretionary</td>
<td>Weekly</td>
<td>Weekly</td>
<td>Weekly</td>
</tr>
<tr>
<td>Diversification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max per Security/Industry</td>
<td>5%/25%</td>
<td>5%/25%</td>
<td>7.5%/25%</td>
<td>10%/25%</td>
</tr>
<tr>
<td>Max per Repo Counterparty</td>
<td>Unrestricted</td>
<td>Restricted</td>
<td>Restricted</td>
<td>Restricted</td>
</tr>
<tr>
<td>Max per Group</td>
<td>N/A</td>
<td>15%</td>
<td>17.5%</td>
<td>20%</td>
</tr>
<tr>
<td>Minimum Liquidity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overnight/7 days</td>
<td>10%/30%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
What Factors *Could* Move NAVs?
What factors can move NAVs?

- **Federal Reserve Actions**
  - The direction of rates directly impacts NAV movements as bond prices move

- **Shareholder Behavior**
  - Rising yields drove growth across LGIPs and Money Market Funds alike
  - With the Fed now cutting interest rates (twice, so far in 2019), will we see MMF investors redeem their cash and move elsewhere?
  - Unexpected shareholder flows can impact the fund’s NAV

- **Prevailing Economic Conditions**
  - Major credit events and headline risk can lead to price volatility affecting securities held in a fund’s portfolio
  - Rating downgrades would impact credit spreads, which could put pressure on a fund’s NAV

- **Mitigating Factors? Building a diversified portfolio with short average maturities and high credit quality investments**
Credit Quality

- Funds rated AAAm must maintain a minimum 50% “effective A-1+ exposure” at all times.

- “Effective A-1+ exposure” includes:
  - All A-1+ rated securities
  - A-1 rated securities maturing in less than 5 business days
    - Because the historical default rates of 'A-1' paper maturing in five business days or less are similar to default rates of 'A-1+' rated issuers.

- Maximum 50% exposure to:
  - A-1 securities maturing in more than 5 business days
  - Criteria was revised in 2016, allowing overnight repurchase agreements with A-2 rated counterparties (limited at 5%)
S&P ‘AAAm’ Rated LGIP Average Credit Quality

Average credit quality of ‘AAAm’ rated funds
S&P effective credit quality considers A-1 rated issuers maturing in 7 days or less as A-1+

Source: S&P Global Ratings
Maturity Positioning

- A portfolio's weighted-average maturity (WAM) are key measures of their tolerance and sensitivity to rising interest rates.

- Portfolio weighted-average maturity (WAM) is limited to 60 days

- Portfolio weighted-average life (WAL) is limited between 90 – 120 days
  - Depending on the fund's exposure to treasury FRNs

<table>
<thead>
<tr>
<th>Determining The Maximum WAM(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invested in floaters ($)</td>
</tr>
<tr>
<td>'AAA' rated sovereign government floating-rate investments</td>
</tr>
<tr>
<td>'AAA' rated corporate floating-rate investments</td>
</tr>
<tr>
<td>Total floating-rate investments</td>
</tr>
</tbody>
</table>

Max WAM(F)
S&P ‘AAAm’ Rated LGIP WAM and WAL

Average WAM and WAL of ‘AAAm’ rated funds

Source: S&P Global Ratings
Issuer Diversification

- A well-diversified portfolio of fixed-income investments reduces the potential impact that an issuer-specific negative credit event could have on the stability of a fund's NAV.

- Single issuer exposure is typically 5%, with exceptions for certain investments (US government, overnight bank deposits, repo with highly rated counterparties)

<table>
<thead>
<tr>
<th>Diversification Subfactors</th>
<th>AAAm</th>
<th>AAm</th>
<th>Am</th>
<th>BBBm</th>
<th>Cure period (business days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversification (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 100 100 100 N/A</td>
</tr>
<tr>
<td>13. Maximum per issuer (including debt guaranteed by the same issuer) (see paragraph 84-86, 72-73) except for the items listed in Diversification exceptions</td>
<td>5</td>
<td>7.5</td>
<td>10</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Diversification exceptions (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 100 100 100 N/A</td>
</tr>
<tr>
<td>14. Maximum concentration per sovereign entity (i.e., national government) rated 'AA' or higher (see paragraphs 74-76)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Maximum concentration per sovereign entity rated 'AA-' (see paragraphs 74-76)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures in one business day (see paragraphs 74-76)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures between two and five business days (see paragraphs 74-76)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Maximum concentration per sovereign entity rated 'A-1', 'A+', or 'A' and that matures in more than five business days (see paragraphs 74-76)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Maximum concentration per bank rated 'A-1', 'A+', or 'A' for uncollateralized overnight bank deposits, including uninvested cash (see paragraphs 72-73)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Maximum concentration per bank rated 'AA-' or higher or 'A-1+' for uncollateralized overnight bank deposits, including uninvested cash (see paragraphs 72-73)</td>
<td>100 100 100 100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Stress Testing

• Stress testing is an important element of a MMF's risk management practices.

• S&P Global Ratings has performed stress testing on its rated MMFs for more than 20 years via our ‘PSFR Sensitivity Matrix’

• In our view, highly-rated funds should conduct stress tests at least monthly

• Stress testing scenarios include
  • Parallel **interest-rate shifts** of plus/minus 200 bps in 25-basis-point increments
  • Asset decreases (i.e., **redemptions**) of 10%, 15%, 20%, 25%, and the percentage of the **largest historical five-business-day net redemptions for the fund**
  • A **downgrade on the largest sovereign, sovereign GRE, and nonsovereign** (excluding overnight investments)
  • The **widening and tightening of credit spreads** (based on current market conditions)
### Stress Testing

#### S&P Global PSFR Sensitivity Matrix

<table>
<thead>
<tr>
<th>Basis Point Shift</th>
<th>Selected Shareholders</th>
<th>Largest Redemption over 5 consecutive business days</th>
<th>Gain (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>0.992310 0.990020 0.989860 0.962489 0.992349</td>
<td>0.963964 0.992349 0.990020 0.989860</td>
<td>(3,386,867)</td>
</tr>
<tr>
<td>250</td>
<td>0.993245 0.992228 0.992577 0.993402 0.993749</td>
<td>0.994062 0.994344 0.994622</td>
<td>0.995051</td>
</tr>
<tr>
<td>200</td>
<td>0.994190 0.993355 0.993604 0.994118 0.994272</td>
<td>0.994492 0.994802 0.995127</td>
<td>(2,975,116)</td>
</tr>
<tr>
<td>175</td>
<td>0.995115 0.994423 0.994832 0.995225 0.995519</td>
<td>0.995910 0.996422</td>
<td>(2,575,445)</td>
</tr>
<tr>
<td>150</td>
<td>0.995583 0.994856 0.995146 0.995475 0.995705</td>
<td>0.995910 0.996422</td>
<td>(2,151,555)</td>
</tr>
<tr>
<td>125</td>
<td>0.996050 0.995490 0.995659 0.995877 0.996038</td>
<td>0.996693 0.997106</td>
<td>(1,945,664)</td>
</tr>
<tr>
<td>100</td>
<td>0.996517 0.996024 0.996173 0.996398 0.996658</td>
<td>0.997084 0.997449</td>
<td>(1,739,774)</td>
</tr>
<tr>
<td>75</td>
<td>0.996985 0.996558 0.997055 0.997479 0.997791</td>
<td>0.998134 0.998771</td>
<td>(1,533,884)</td>
</tr>
<tr>
<td>50</td>
<td>0.997452 0.997091 0.997200 0.997642 0.997760</td>
<td>0.997887 0.998134</td>
<td>(1,327,993)</td>
</tr>
<tr>
<td>25</td>
<td>0.997920 0.997625 0.997714 0.997968 0.998075</td>
<td>0.998171 0.998476</td>
<td>(1,122,103)</td>
</tr>
<tr>
<td>0</td>
<td>0.998387 0.998159 0.998228 0.998425 0.998508</td>
<td>0.998650 0.998918</td>
<td>(916,212)</td>
</tr>
<tr>
<td>-25</td>
<td>0.999155 0.998692 0.998741 0.998840 0.998993</td>
<td>0.999041 0.999312</td>
<td>(710,322)</td>
</tr>
<tr>
<td>-75</td>
<td>0.999222 0.999525 0.999338 0.999473 0.999942</td>
<td>0.999953 0.999953</td>
<td>(504,432)</td>
</tr>
<tr>
<td>-100</td>
<td>0.999790 0.999760 0.999795 0.999805 0.999815</td>
<td>0.999824 0.999846</td>
<td>(298,541)</td>
</tr>
<tr>
<td>-125</td>
<td>1.000257 1.000294 1.000293 1.000238 1.000226</td>
<td>1.000251 1.000266</td>
<td>(92,651)</td>
</tr>
<tr>
<td>-150</td>
<td>1.000725 1.000827 1.000796 1.000708 1.000671</td>
<td>1.000637 1.000671</td>
<td>(113,240)</td>
</tr>
<tr>
<td>-175</td>
<td>1.001192 1.001361 1.001310 1.001164 1.001030</td>
<td>1.001048 1.001087</td>
<td>(319,130)</td>
</tr>
<tr>
<td>-200</td>
<td>1.001659 1.001895 1.001824 1.001621 1.001536</td>
<td>1.001459 1.001489</td>
<td>(730,911)</td>
</tr>
<tr>
<td>-250</td>
<td>1.002594 1.002962 1.002851 1.002534 1.002401</td>
<td>1.002281 1.002724</td>
<td>(1,142,692)</td>
</tr>
<tr>
<td>-300</td>
<td>1.003529 1.004000 1.003878 1.003447 1.003266</td>
<td>1.003103 1.002955</td>
<td>(1,554,473)</td>
</tr>
</tbody>
</table>

### Summary

- **Total $ Loss:** ($751,500)
- **Total $ Gain:** $0

#### Stress Test Scenarios

- **Redemptions/Subscriptions:**
  - 12%
  - 23%
  - 20%
  - 10%
  - 5%
  - 0%

- **Shift Upon NAV = NAV - (WAM/365) * (Bp/10,000)**

- **Dilution Upon NAV = (NAV + Change) / (1 + Change)**

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**Private & Confidential**
How do you monitor fund ratings?
Surveillance Monitoring of Fund Ratings

- **Dedicated Staff of Surveillance Analysts & Proprietary Portfolio Monitoring System**
- Portfolio Holdings, Cash Flows & Risk Parameters are reviewed:
  - ✔ Weekly for PSFRs
  - ✔ Monthly for FCQR & FVRs
- Portfolio Level & Security Level Analysis
  - ✔ portfolio maturity
  - ✔ credit quality
  - ✔ illiquid and market sensitive securities
  - ✔ sector allocations
  - ✔ variable / floating rate instruments
  - ✔ net asset value (pricing) fluctuations
  - ✔ Comparison of CDS vs. current ratings
  - ✔ Highest yielding fund analysis
- Internal Monthly Surveillance Meetings to Review Material Events
- Frequent Communication with Fund Management
- **Annual On-Site Management Review Meeting**
- Review of Underlying Shareholder Concentration and Liquidity Adequacy
## Cure Periods for PSFR Criteria Breaches

<table>
<thead>
<tr>
<th>Metric/Threshold Category</th>
<th>Cure Period*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAV</strong></td>
<td>-0.25% or 0.9975 Up to 5 business days</td>
</tr>
<tr>
<td></td>
<td>-0.15% or 0.9985 requires daily pricing</td>
</tr>
<tr>
<td><strong>Downgrades below ‘A-1’</strong></td>
<td>% of portfolio</td>
</tr>
<tr>
<td></td>
<td>≤0.5% = 397 calendar days</td>
</tr>
<tr>
<td></td>
<td>&gt;0.5% ≤ 1.0% = 120* calendar days</td>
</tr>
<tr>
<td></td>
<td>&gt;1.0% ≤ 5.0% = 60* calendar days</td>
</tr>
<tr>
<td></td>
<td>&gt;5% = 14 calendar days</td>
</tr>
<tr>
<td></td>
<td>* Regardless of the short-term rating, if the long-term rating is ‘BBB+’ and on CreditWatch negative or ‘BBB’ or lower, the cure period drops to seven calendar days.</td>
</tr>
<tr>
<td><strong>Maturity</strong></td>
<td>20 business days</td>
</tr>
<tr>
<td><strong>10% illiquid/limited liquidity bucket</strong></td>
<td>20 business days</td>
</tr>
<tr>
<td><strong>Diversification</strong></td>
<td>20 business days</td>
</tr>
<tr>
<td><strong>Overall Credit Quality</strong> (i.e., 50% maximum in A-1)**</td>
<td>10 business days</td>
</tr>
</tbody>
</table>

*NOTE: The cure period related to a breach applies only to that specific metric/threshold and to no others and begins on the date the breach occurs. All cure periods are based on a fund’s NAV remaining within the ranges outlined for each rating category (i.e., AAAm - 0.25%)
In The Event of a Criteria Breach

S&P analysts will contact the portfolio management team to discuss

• What caused the criteria breach?
  - Driven by unexpected shareholder activity/redemptions?
  - Failure in the trading or compliance systems?
  - Active portfolio management decision to disregard applicable criteria limits?

• What is the action plan?
  - Does the portfolio manager intend to remedy the breach within the applicable cure period?

• Proactive mitigation moving forward
  - Can the portfolio manager demonstrate tangible steps in place to mitigate the risk of the same breach occurring again in the future?
What do S&P ratings indicate?
S&P Principal Stability Fund Ratings are:

- Our opinion on the relative safety of invested principal.
- An indication of a high credit quality portfolio.
- An independent, third party review of management’s experience, operations and controls.
- A weekly review of the investment holdings and key fund statistics including but not limited to NAV, WAM and asset flows.
S&P Principal Stability Fund Ratings are not:

- A guarantee or indication investment is risk free
- An indication of the willingness/ability of sponsor to provide support.
- A comment on yield or performance.
- A guarantee of daily liquidity (or impacted by a fund management’s decision to suspend redemptions)
## Principal Stability Fund Ratings Definitions

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAm</td>
<td>A fund rated 'AAAm' demonstrates extremely strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. 'AAAm' is the highest principal stability fund rating assigned by Standard &amp; Poor's.</td>
</tr>
<tr>
<td>AAm</td>
<td>A fund rated 'AAm' demonstrates very strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. It differs from the highest-rated funds only to a small degree.</td>
</tr>
<tr>
<td>Am</td>
<td>A fund rated 'Am' demonstrates strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk, but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than funds in higher-rated categories.</td>
</tr>
<tr>
<td>BBBm</td>
<td>A fund rated 'BBBm' demonstrates adequate capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. However, adverse economic conditions or changing circumstances are more likely to lead to a reduced capacity to maintain principal stability.</td>
</tr>
<tr>
<td>BBm</td>
<td>A fund rated 'BBm' demonstrates speculative characteristics and uncertain capacity to maintain principal stability. It is vulnerable to principal losses due to credit risk. While such funds will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions.</td>
</tr>
<tr>
<td>Dm</td>
<td>A fund rated 'Dm' has failed to maintain principal stability resulting in a realized or unrealized loss of principal.</td>
</tr>
</tbody>
</table>

### Plus (+) or minus (-) 
The ratings from ‘AAAm’ to ‘BBm’ may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the rating categories.
Which issuers are money market funds buying?
The OFR - U.S. Money Market Fund Monitor

• The OFR uses MMFs regulatory filings to track the investment portfolios of money market funds by funds' asset types, investments in different countries, counterparties, and other characteristics.

• The tool illustrates where US MMFs are investing, and how those exposures have evolved over time

• The tool can provide investors with
  • A benchmark of the overall MMF industry
  • Peer comparisons
The chart reflects US Prime MMFs investments in various financial institutions, and how those exposures have evolved over time.
The chart reflects US Prime MMFs investments in various corporate issuers, and how those exposures have evolved over time.
Trends in MMF Asset Allocation – Corporate Exposure

The chart reflects US Prime MMFs investments in General Electric, categorized by fund manager.

S&P Global Ratings

Private & Confidential
The Money Fund Monitor can help with peer comparisons

- The above graph shows historical exposures of Morgan Stanley’s Prime money market fund.
- Investors can use this to compare holdings and exposures with other funds.
Deep Dive into S&P Rated LGIPs
S&P Global Ratings – LGIP Rated Assets / Stats

• LGIP stats under PSFR criteria:
  - Average WAM across all Rated LGIPs = 36 days
  - Average Pool size across all Rated LGIPs = $3.2 billion
  - Largest Pool across all Rated LGIPs = $20.9 billion
Investment Trends: Local Government Investment Pools

S&P Rated LGIP Net Assets

Source: Standard & Poor's
Investment Trends: Local Government Investment Pools

S&P Rated LGIP Index Yield and WAM(R)

Source: Standard & Poor's
## S&P Global Principal Stability Rated GIP Indices

<table>
<thead>
<tr>
<th>S&amp;P Rated Government Investment Pool Indices</th>
<th>7 Day NET Yield %</th>
<th>30 Day NET Yield %</th>
<th>7 Day GROSS Yield %</th>
<th>30 Day GROSS Yield %</th>
<th>WAM (R) (Days)</th>
<th>WAM (F) (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P Rated GIP Index/ALL (Week Ended Sept 27, 2019)</td>
<td>2.02%</td>
<td>2.11%</td>
<td>2.18%</td>
<td>2.27%</td>
<td>36</td>
<td>75</td>
</tr>
<tr>
<td>S&amp;P Rated GIP Index/Government (Week Ended Sept 27, 2019)</td>
<td>1.93%</td>
<td>2.05%</td>
<td>2.07%</td>
<td>2.20%</td>
<td>32</td>
<td>80</td>
</tr>
<tr>
<td>S&amp;P Rated GIP Index/G.P. Taxable (Week Ended Sept 27, 2019)</td>
<td>2.04%</td>
<td>2.12%</td>
<td>2.20%</td>
<td>2.29%</td>
<td>37</td>
<td>74</td>
</tr>
</tbody>
</table>

To View In Bloomberg: LGIP <Index> <Go>

Reported Weekly By S&P Global Ratings

Note: Indices comprised Of ‘AAAm’ Rated Government Investment Pools
## S&P Global’s Principal Stability Rated GIP Index – Quartile Rankings*

<table>
<thead>
<tr>
<th>Ranking</th>
<th>7 Day</th>
<th></th>
<th>30 Day</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top Yield</td>
<td>Low Yield</td>
<td>Top Yield</td>
<td>Low Yield</td>
</tr>
<tr>
<td>Gross Yields (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Quartile</td>
<td>2.35</td>
<td>2.27</td>
<td>2.42</td>
<td>2.33</td>
</tr>
<tr>
<td>Second Quartile</td>
<td>2.27</td>
<td>2.18</td>
<td>2.33</td>
<td>2.27</td>
</tr>
<tr>
<td>Third Quartile</td>
<td>2.18</td>
<td>2.12</td>
<td>2.27</td>
<td>2.22</td>
</tr>
<tr>
<td>Fourth Quartile</td>
<td>2.12</td>
<td>1.97</td>
<td>2.22</td>
<td>2.00</td>
</tr>
<tr>
<td>Net Yields (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Quartile</td>
<td>2.27</td>
<td>2.13</td>
<td>2.30</td>
<td>2.21</td>
</tr>
<tr>
<td>Second Quartile</td>
<td>2.13</td>
<td>2.04</td>
<td>2.21</td>
<td>2.12</td>
</tr>
<tr>
<td>Third Quartile</td>
<td>2.04</td>
<td>1.95</td>
<td>2.12</td>
<td>2.06</td>
</tr>
<tr>
<td>Fourth Quartile</td>
<td>1.95</td>
<td>1.52</td>
<td>2.06</td>
<td>1.63</td>
</tr>
</tbody>
</table>

*September 27, 2019 Quartile Rankings
Portfolio Composition of AAAm Rated LGIPs (PSFR)
As of September 27, 2019

S&P Rated GIP Index/All

- Treasury, 8.18%
- Municipal Debt, 0.53%
- Money Market Fund, 3.14%
- Corporate, 5.30%
- Commercial Paper, 21.08%
- Repurchase Agreements, 13.19%
- Asset Backed Securities, 5.96%
- Bank Deposits, 23.20%
- Agency, 19.43%
- S&P Rated GIP Index/General Purpose Taxable

- Treasury, 4.55%
- Municipal Dept, 0.65%
- Money Market Fund, 3.59%
- Corporate, 6.62%
- Commercial Paper, 26.34%
- Repurchase Agreements, 8.52%
- Asset Backed Securities, 7.45%
- Bank Deposits, 26.53%
- Agency, 15.75%

S&P Rated GIP Index/Government

- Treasury, 22.69%
- Money Market Fund, 1.31%
- Bank Deposits, 9.89%
- Agency, 34.14%
Noteworthy Industry Topics
Federal Open Market Committee (FOMC)

• The FOMC met the markets expectations by cutting 25bps from its key policy rate on September 18, bringing rates down to 1.75% – 2.00%

• S&P Global Economics expect we’ll see one more rate cut in December

• Slowing domestic growth + trade policy uncertainties = one more rate cut

• Of course, expectations can change depending on economic data

• We’ll be keeping an eye on any escalation in trade tensions, further weakness in global growth, and increased geopolitical tensions
Will an escalation in trade tensions end the U.S’s record run?

“While the U.S. economy faces policy shocks both at home and abroad, fundamental domestic strength—in particular from American consumers—is helping to extend the historic expansion in the world’s biggest economy…That said, the ongoing trade dispute between the U.S. and China has raised uncertainty and added to signs that economic momentum is slowing.”

– S&P Global Economics
Where can I find more information on LGIPs rated by S&P?
Head to [www.spratings.com](http://www.spratings.com) for the latest research and analysis.

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**ARTICLE: ECONOMIC RESEARCH**

**Economic Research: The U.S.-China Trade War: The Global Economic Fallout**

May 22, 2019

In a first look at trade tariffs the U.S. and China have recently slapped on each other, economists at S&P Global Ratings believe the direct effects on the world’s two largest economies are likely to be minimal—if the levies remain in place for the rest of 2019. However, the indirect macroeconomic effects are likely to be many, varied, and capture other trade-dependent economies in their nets like...
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A S&P Global Ratings Principal Stability Fund Rating, also known as a “money market fund rating,” is a forward-looking opinion about a fixed-income...

**Fund Volatility Ratings**
Forward-looking opinions about a fixed-income investment fund’s sensitivity to changing market conditions.

**Fund Credit Quality Ratings**
A Fund Credit Quality Rating is our forward-looking opinions about the overall credit quality of a fund’s portfolio.

**Local Government Investment Pools**
Includes Principal Stability Fund Ratings, Fund Credit Quality Ratings and Fund Volatility Ratings.

**RATING ACTIONS**

**INDUSTRY COMMENTARY**

**MULTIMEDIA: CREDITMATTERS TV**

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**RELATED RESOURCES**
Follow rating actions on S&P rated local government investment pools

10-Aug-2018: Ratings On Solano County Treasurer's Investment Pool Withdrawn At Management's Request
7-Mar-2018: Florida Local Government Investment Trust Ratings Withdrawn On Administrator's Request
11-Dec-2017: Ventura County Treasury Portfolio 'AAAf/S1+' Ratings Affirmed
8-Dec-2017: Liquidity Fund Of The Ohio State Treasurer 'AAAf/S1+' Ratings Affirmed
7-Dec-2017: Hillsborough County Investment Pool Fund Credit Quality Rating Raised To 'AAAf'; Fund Volatility Rating Affirmed At 'S1'
29-Nov-2017: Fund Credit Quality Rating Raised To 'AA+f' On One Florida Fixed Income Trust Portfolio; Ratings On Two Funds Affirmed
30-Oct-2017: State of Texas Treasury Pool 'AAAf/S1' Ratings Affirmed
23-Oct-2017: Florida Local Government Investment Trust - Short Term Bond Fund 'AAAf/S1' Fund Ratings Affirmed
18-Sept-2017: Arizona LGIP Pool 5 'AAAf/S1+' Fund Ratings Affirmed
18-Sept-2017: Two Georgia State Treasurer Local Government Investment Pools Fund Ratings Affirmed
20-July-2017: Virginia Treasury LGIP Extended Maturity Portfolio Assigned 'AAAf/S1' Ratings
18-July-2017: Puerto Rico Government Investment Trust Fund 'AAAm' Rating Placed On CreditWatch Negative
22-June-2017: Florida Fixed Income Trust: Commercial Paper Pool Fund Volatility Rating Raised To 'S1+'
19-May-2017: Colorado Statewide Investment Pool - CSIP Liquid Portfolio Assigned 'AAAm' Rating
04-April-2017: Liquidity Fund of the Treasury of the State of Ohio Rated 'AAAf/S1+'
See LGIP Profiles to compare and contrast various pools rated by S&P

- **PROFILES**

  Alaska Municipal League Investment Pool (September 2018)
  Arizona LGIP Pool 5 (September 2018)
  California Asset Management Trust/Cash Reserve Portfolio (March 2019)
  CalTRUST Short Term Fund (September 2018)
  CalTRUST Medium Term Fund (September 2018)
  City of Anaheim Treasurer Investment Pool (March 2019)
  City of Long Beach California Investment Pool (March 2019)
  Colorado Local Government Liquid Asset Trust (COLOTRUST PRIME) (March 2019)
  Colorado Local Government Liquid Asset Trust (COLOTRUST PLUS+) (March 2019)
  Colorado Statewide Investment Pool – CSIP Liquid Portfolio (March 2019)
  Colorado Surplus Asset Fund Trust (CSAFE) (September 2018)
  Connecticut State Treasurer’s Short-Term Investment Fund (March 2019)
  Contra Costa County Investment Pool (March 2019)
  FL SAFE Stable NAV Fund (March 2019)
  FL SAFE Variable NAV Fund (March 2019)
  Florida Cooperative Liquid Assets Securities System (March 2019)
  Florida Education Investment Trust Fund (March 2019)
  Florida PRIME (September 2018)
  Florida Surplus Asset Fund Trust (September 2018)

**Rationale**

S&P Global's 'AAAm' rating on the Louisiana Asset Management Pool (LAMP) signifies our forward-looking opinion about a fixed-income fund's ability to maintain principal value (i.e., stable net asset value, or 'NAV').

**Overview**

LAMP began operations in January 1994 to provide a safe, liquid, and convenient investment alternative for local government entities in Louisiana. LAMP is operated by a non-profit corporation, LAMP, Inc., whose officers include the President, normally the Treasurer of the State of Louisiana, a Chief Executive Officer, and a Chief Administrative Officer. LAMP, Inc. is governed by a board of directors, nine to 14 members elected each year by the participants. The investment objectives of LAMP are to preserve capital and protect principal, maintain sufficient liquidity, provide safety of funds and investments, and maximize the return on the pool. Investors consist of school boards, municipalities, police juries, and other public entities of the state of Louisiana.
See LGIP Profiles to analyze portfolio composition and historical trends of rated pools.
Thank you

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