INVESTMENT COMPANY INSTITUTE

COMMENT LETTER

January 10, 2011

ICI Comment Letter on President's Working Group Report on Money Market Fund Reform: Liquidity Facility Slides (pdf)

Appendix to ICI Comment Letter Liquidity Exchange Facility January 10, 2011 Context • Designed to address suggestion in Treasury White Paper – Financial Regulatory Reform: A New Foundation (2009) • Industry acceptance conditioned on: No floating NAV requirement (implicit or explicit) Reasonable cost factoring in current yield environment Facility being a factor when regulators consider bank liquidity and capital requirements for banks that sponsor money market funds 201/10/2011 Overview of Structure Liquidity Facility — Purpose • An industry-sponsored solution to enhance liquidity for all prime MMFs during times of unusual market stress Available to - and required participation by - all Rule 2a-7 prime MMFs I th t f d k t li idit t th LF b n e even o a secon ary mar e qu y s ress, e uys securities from MMFs at amortized cost (to avoid affecting fund NAV) 401/10/2011 Liquidity Facility — Purpose • Liquidity pooling characteristic of the facility provides a source of liquidity beyond Rule 2a-7 requirements Serves as backup: fees and access policies would encourage funds to use available market liquidity before utilizing the LF Not a credit support: facility will employ strict investment guidelines on the assets it will accept including credit quality, duration and issuer concentrations S pport market alternati e to forced selling hich red cesu : v , w u effects of money market fund liquidity needs on money markets 501/10/2011 Liquidity Facility — Purpose • Provides additional liquidity to the industry in a financial market crisis by borrowing from the discount window LF will be a state-chartered member bank or trust company eligible to access the discount window in the ordinary course under Regulation A 601/10/2011 How the LF Provides Liquidity Normal Mode • Commitment fee and time deposit proceeds Liquidity Mode • Funds unable to meet redemptions exchange Window Access • Same as Liquidity Mode except securities invested in short duration Treasury and agency securities high quality, short-term CP/similar assets for cash , exchanged at discount window for cash • Access based on • Returns paid to third party investors on time deposits • LF management minimizes credit risk by selecting securities F d f normal discount window policies • un pays access ee 701/10/2011 Liquidity Facility Capitalization Equity Debt • From fund sponsors • From the prime funds, derived f i ‘ it t f ’ • Purchased by third parties Initial equity Retained earnings LF time deposits • Approximately $350 million; minimum contribution of $250,000 • Contribution roughly in rom ongo ng comm men ees of 3 bps charged on fund AUM • Builds equity of LF to achieve and maintain desired leverage ratio* in liquidity/discount • Market rate expected to approximately equal 3-month bank CD rate • Issuance at year 3 and capped proportion to current prime MMF AUM, up to 4.9% to avoid sponsor being deemed to “control” under banking regulations window mode • Accrues for benefit of current and future MMF shareholders, not equity holders/sponsors at 1.3% MMF AUM to ensure sufficient interest coverage • Laddered issuances • Will be 2a-7 eligible securities • Will have process to manage evolving ownerships (periodic true-ups to reflect changes in AUM) • Board will have ability to increase fee as yields increase * Target leverage ratio = 5% 801/10/2011 Initial Equity per Complex, Assuming a 4.9% Equity Cap Equity contributions are allocated by current prime MMF assets share and a balanced minimum contribution. Ownership capped at 4.9% of $350M in equity capital to prevent any issue of BHC ‘controlling ownership’ of LF F d l # of Total prime AUM P i k h LF i h Average LF equity Average LF equity A 312.5 18.9% 4.9% 0.55 17.15 B 146.6 8.9% 4.9% 1.17 17.15 C 118.8 7.2% 4.9% 1.44 17.15 D 116.9 7.1% 4.9% 1.47 17.15 un comp ex complexes ($B) r me mar et s are equ ty s are as bps of AUM ($M) E 110.5 6.7% 4.9% 1.55 17.15 F 109.0 6.6% 4.9% 1.57 17.15 G 91.5 5.6% 4.9% 1.87 17.15 H 80.3 4.9% 4.9% 2.14 17.15 I 45.0 2.7% 4.7% 3.68 16.56 J 40 9 2 5% 4 3% 3 68 15 06. . . . . All other fund complexes by AUM > $10B 16 341.1 20.7% 35.8% 3.68 8.36 $3-10B 16 78.5 4.8% 8.2% 3.68 1.80 $1-3B 27 40.7 2.5% 4.4% 3.76 0.67 < $1B 41 16.9 1.0% 3.3% 6.85 0.26 Note: Minimum equity contributions by complex AUM: > $10B = $2M; $3-10B = $1M; $1-3B = $500K; < $1B = $250K; Figures are calculated based upon total prime money market funds AUM of $1,650 billion as of 08/31/10. Source: ICI data as of 08/31/10 901/10/2011 Bank Details Charter • LF will be a New York state-chartered member bank or trust company eligible to access the discount window in the normal course under Regulation A Insurance status • LF will issue time deposits that are eligible for FDIC insurance and will seek an exemption from the New York State Banking Department to allow it to be uninsured • LF is not required to be FDIC insured to access discount window Membership in Federal Reserve • LF will be a member of the Federal Reserve • As a member, LF will be required to purchase stock from the Federal Reserve Bank of New York equal to 6% of LF’s paid-up it l t k d l i h lf f th b i ticap a s oc an surp us, pay ng one- a o e su scr p on (3%) at the time LF becomes a member 1001/10/2011 Industry Economics Prime MMF Assets are Down and Fee Waivers are Up Prime MMF Industry AUM, trillions of dollars (d f A t) Prime money market fund assets have declined 20% Sponsors of prime MMFs have substantially increased fee waivers $2.2 2 3 Fees waived, billions of dollars $2.1 2 3 en o ugus $.86 $.89 $1.6 1 $1.3 $1.4 $1.6 1 0 2007 2008 2009 2010 YTD 0 2004 2006 2008 2010 % of prime MMF h annualized* 12 Sources: ICI, iMoneyNet * Reflects fees waived through October 2010, annualized s are classes waiving fees 64% 58% 89% 90% 01/10/2011 Net Prime Money Market Fund Fees are at Their Lowest Level in a Decade1 5 5 6.5 6.6 5.9 6.2 6.9 6.0 Billions of dollars . 5.1 4.9 5.3 3.2 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 1Total fees and expenses paid are calculated by multiplying the net expense ratio of a fund share class by share class assets, accumulated h F d id i l d 12b 1 f d i i t ti f t f t f d i f d i ll th 2 13 over eac year. ees an expenses pa nc u e - ees, a m n s ra ve ees, rans er agen ees, a v sory ees, an m sce aneous o er expenses and are net of waivers. 2Data through October 2010. Sources: Investment Company Institute and iMoneyNet 01/10/2011 Average Prime Money Market Fund Yield* 4.5 5.0 Percent, 2007 – 2010 3.0 3.5 4.0 383 share classes with yield ≤ 4bps 617 share classes total 1.5 2.0 2.5 August 25, 2010, 4 basis points 0.0 0.5 1.0 * Simple average Source: iMoneyNet.com 2007 2008 2009 2010 1401/10/2011 Fund Sponsors Continue to Exit the Prime Money Market Fund Business * As of 8/31/2010 Sources: Investment Company Institute 1501/10/2011 New SEC Rules Provide Greater Protections Against Potential Redemption Pressure New minimum liquidity requirements Other key changes Rule 2a-7 liquidity • Shorter average maturity limits and new limits on lower quality (2nd tier) securities • Required “know your investor” and stress testing ensure that portfolio management is better 400 $500B ~$495B matched to potentials risks • New ability to suspend redemptions if a fund is about to break $1 NAV to allow orderly portfolio liquidation200 300 ~$165B • Expanded ability of affiliates to purchase distressed assets from funds to protect from losses • More information available to regulators and 0 100 Daily Increased Rule 2a-7 liquidity Weekly Source: ICI data for total prime money market funds AUM of $1.650B as of 8/31/10; figures based on new SEC rules for 10% daily and 30% weekly liquidity requirements investors 16 10 30% of industry 01/10/2011 Capacity • Under current design, the early-year capacity of the LF will be limited, restricted by the ability of sponsors to provide initial capital and it l l ti f it t fcap a accumu a on rom comm men ees - As designed, the $350M in equity from sponsors would allow for $7 billion in starting capacity (assumes 5% leverage) As yields improve Board could raise commitment fee allowing capacity to increase- , more rapidly than as modeled here - At the time of issuance of time deposits (in year 3), capacity increases to approximately $23 billion 1701/10/2011 LF Capacity Increases Quickly as (After- Tax) Commitment Fees Accumulate $60B LF exchange capacity, year end 40 1 44.6 49.1 53.7 20 40 12.3 17.7 22.7 27.0 31.3 35.7 . Fed borrowing Notes 0 Year 0 7.0 1 2 3 4 5 6 7 8 9 10 Equity Source of funds ($B) 6.65 25.37 29.7211.70 16.91 11.50 4.26 8.39 12.57 16.79 21.06Fed borrowing 0.00 21.44 21.440.00 0.00 10.10 21.44 21.44 21.44 21.44 21.44Notes 0.35 2.46 2.690.62 0.89 1.14 1.35 1.57 1.79 2.01 2.24Equity 0.23 0.230.27 0.27 0.25 0.22 0.22 0.22 0.22 0.22Net change in equity Drawn in normal and liquidity modes Liquidity mode only Note: Assumes 3 bps commitment fee, $1.65T in industry assets, cost of notes is 50 bps above normal mode assets yield. Source: LF financial model 1801/10/2011 Ti 1 L R ti i E t d t b Bi dier everage a o s xpec e o e n ng Capitalization Constraint Balance sheet (Illustrative): The LF entering Liquidity Mode ILLUSTRATIVE All three capital ratios must be above minimums to be “well- capitalized” (50% capacity) (assumes 20% risk-weighting, show at ‘full capacity’) Ratio Calculation LF at full capacity for $1B equity Well- capitalized minimum Tier 1 Leverage = E =5% >=5% T + C C E T $1B ($0B+$20B) Tier 1+2 Risk-weighted = capital E =25% >=10% 0%* + 20%* E T CT $1B Tier 1 Risk-weighted = capital E =25% >=6% 0%* T + 20%* C E E CT ($0B+20% * $20B) $1B Note: Excludes from assets non-security assets of the LF and excludes LF holdings in Federal Reserve Bank Stock (approx 6% of equity capital). Source: Federal Reserve, FDIC 01/10/2011 19 ($0B+20% * $20B) Risk Management and Controls Risk Management is Accomplished through Stringent Asset Policies Credit risk • LF will only accept first-tier securities that are not on credit watch • LF commercial credit portfolio will be well diversified due to issuer concentration limit • LF will conduct independent credit analysis to maintain a non-public list of acceptable issuers whose securities the LF will purchase from MMFs • LF retains the ultimate credit decision when lifting out securities from funds seeking liquidity; funds are provided no guarantee the LF will accept any given security • Duration and WAM of the CP portfolio that the LF will hold is limited • LF time deposits’ duration and issuance is closely matched to the CP portfolio to minimize liquidity risk; it is I t t t i k Liquidity risk further minimized by the LF’s ability to access the discount window • Normal mode asset investments are matched to LF time deposits’ liabilities • LF will only hold very short-duration securities and will closely match asset and liability durations to minimize n eres ra e r s price and interest rate risks Operational, Compliance, and • LF will utilize banking industry best practices for risk management, compliance and operational risk auditing • The charter scope for the liabilities, assets and processes of the bank are highly constrained relative to a typical large commercial bank increasing ease and effectiveness of oversight by bank management the Reputational risks – , Board, and regulators 2101/10/2011 LF Portfolio Policies • Type: US Treasury and agency bills • Duration: 75% of portfolio will have maturity of 90 days or less; 25% of portfolio will have • Type: CP, ABCP, bank notes, banker’s acceptance • Duration: No less than 75% of accepted securities will have maturity of 45 days or Normal operations Liquidity operations maturity between 91 and maximum of 180 days ▪ Maximum WAM of 90 days ▪ LF ALCO policy will be to minimize duration gap between LF time deposits and i t t hil i t i i i ifi t less; up to 25% of accepted securities may have maturity up to 60 days ▪ Maximum WAM of 49 days • Minimum credit quality: first-tier rating; not on credit watch; LF personnel will also conduct d d d l Permissible assets nves men s, w e ma n a n ng s gn can short duration asset liquidity in epen ent cre it ana ysis • Scope: LF has discretion to accept any security that meets its duration and quality requirements • None • Up to approximately 2% of LF assets may be securities of single issuer • LF Board may, at its discretion, increase issuer concentration cap Can purchase Treasuries and agencies on open Member fund sells securities to the LF from Asset concentration limits • market • , which access fee is deducted • Sale takes place at amortized cost Means of acquiring assets 2201/10/2011 Concentration Limits Balance LF Asset Quality and Ability to Assist Funds Portfolio • To achieve default risk diversification, the LF will seek to avoid a single issuer concentration greater than approximately 2% of LF assets • LF Board may at its discretion raise that issuer concentration cap concentration limits , , • These concentration limits do not apply to LF Treasury and agency securities holdings • Issuer limits ensure sufficient equity capitalization to absorb potential defaults on issuers Rationale • Issuer concentration is more conservative than Rule 2a-7 limits for money market funds and will require the LF to be well-diversified across issuers 2301/10/2011 Access Policies Access requirements • MMF cannot have broken the buck, nor break the buck as the result of liquidity exchange with the LF • Fund has demonstrated a liquidity need as evidenced by significant redemption requests • Fund must possess securities that the LF will buy and present its whole portfolio for review • Funds accessing the LF shall pay the greater of a) an annualized fee of 25 basis points and b) the current Fed window secondary discount rate less the amortized cost yield to maturity from the proceeds of sale of securities to the LF - We assume that in times of severe liquidity need, the discount window rate would be accommodative and the 25 bps fee would be in effect for liquidity exchanges butFee , - Given the need for the LF to borrow at the discount window to fulfill its mission and the inability of the LF to afford a situation in which the CP yield is lower than cost of borrowing at discount window, the second condition is required - LF Board retains right to alter access fee amount due to changing market conditions 2401/10/2011 Stress Testing LF Faces Four Potential Draws on Capital; Unlikely They Would Exceed 5% of Assets in a Worst-Case Scenario Description: • Default losses on CP and/or CDs • Temporary loss due to difference in fair market value (FMV) of • Realized losses given rise of interest rates (when entering and/or • Difference between Fed penalty rate and yield earned on CP Credit FMV-AC differential Interest rate Fed windowpenalty rate purchased securities and funds' amortized cost (AC) during liquidity mode) Mitigants: • Asset policies: ▪ tight concentration limit • LF designed to purchase at AC, but • Short durations (90 days WAM in normal; • Access fee (greater of 25 bps for single issuer ▪ first-tier rating, not on credit watch ▪ Independent credit analysis and discretion on which CP to accept CP with >1% differential unlikely to pass LF's credit hurdles. Implies issuer credit problems 49 in liquidity mode) annualized and Fed discount rate, less CP yield spread) Worst case impact on capital (as % of assets): ~2-3% ~1% (reverses in 2X historic highs Would require largest increase in Treasury yields seen in the last 30 years (~350bps) Assumes largest spread between penalty and CP rates ever seen 2601/10/2011 Default History for CP Issuers and Recovery Rates Defaulted Issuers - Corporates A1/P1* Sector Default date Recovery Manville Corp Y Corp 08/26/1982 100% Wang Laboratories Inc N Corp 08/16/1989 100% UNI Storebrand N Corp 08/25/1992 100% Columbia Gas System N Corp 06/20/1991 100% Metallgesellschaft N Corp 01/07/1994 100% Groupo Simec N Corp 03/15/1995 100% Groupo Situr N Corp 03/15/1995 100% Southern California Edison Y Corp 01/16/2001 100% Pacific Gas & Electric Company Y Corp 01/17/2001 100% Average Recovery Rate 100% Defaulted Issuers – Financials Sector Default date Recovery %CP Market Wang Credit Corp N Fin 08/16/1989 100% Sector Avg Recovery 2010 Colorado-Ute

Financial Services Corp Y Fin 08/17/1989 99% Corp 100% 12% Lomas Financial Corp N Fin 09/01/1989 75% Fin 85% 50% Equitable Lomas Leasing Corp N Fin 09/12/1989 100% ABS - All 56% 38% Metallgesellschaft Finance BV N Fin 01/07/1994 100% Kapital Haus N Fin 03/14/1995 100% Mercury Finance Co N Fin 01/31/1997 75%. Thornburg Mortgage N Fin 04/14/2008 100% Lehman Brothers Y Fin 09/15/2008 15% Average Recovery Rate 85% Defaulted Issuers – Non-Bank Liquidity Sector Default date Recovery KKR Atlantic Y ABS – Non Bank 03/31/2008 30% KKR Pacific Y ABS – Non Bank 03/31/2008 30% Average Recovery Rate 30% Defaulted Issuers – Market-Value Liquidity Sector Default date Recovery Cheyne Y ABS - SIV 10/19/2007 45% Rhinebridge ** ABS - SIV 10/19/2007 55% Ottimo Y ABS - SIV 11/09/2007 25% Golden Key Y ABS - SIV 11/27/2007 40% Mainsail ** ABS - SIV 11/27/2007 16% Axon Y ABS - SIV 11/27/2007 30% Victoria Finance ** ABS - SIV 01/14/2008 21% Orion Finance Y ABS - SIV 01/16/2008 40% Whistlejacket Y ABS - SIV 02/15/2008 71% White Pine ** ABS - SIV 02/15/2008 71% Average Recovery Rate` 41% *Credit rating prior to default; **SIV was rated AAA prior to default Source: Invesco analysis; S&P; Moody's 2711/29/2010 90% of all CP Yield Increases Within a Month Have Been Less Than 100 bps Rate increase statistics: • Median: 25 bps • Largest: ~350 bps (1982) • Outside of 1982, largest increases 1,500 # of occurrences* since Jan. 1, 1982 1,384 1,309 were ~200 bps in 1986 and ~170 bps in 2008 All i 200 b 1,000 ncreases > ps occurred in early 1982500 378 167 172 76 15 32 40 7 25 0 0 to 20 20- 40 40- 60 60- 80 80- 100 100- 120 120- 140 140- 160 160- 180 180- 200 More than 200 d ld (b) 18.8% 0.1% 0.3%17.7% 5.1% 2.3% 2.3% 1.0% 0.2% 0.4% 0.5%Share of occurrences* * Occurrence defined as (overlapping) month-long change in quoted rate for every trading day in the period. There were 7378 occurrences in total, 3773 occurrences in which rates declined are not illustrated. Note: 30-day prime commercial paper quoted Jan. 1982 – Dec. 1996; 30-day AA financial commercial paper quoted Jan. 1997 – May 2010 Source: Federal Reserve 28 Maximum 30- ay CP yie increases ps 01/10/2011 CP Yields Would Need to Increase by More than 2X Historical Highs to Drive a 1% FMV-AC Differential Key assumptions To be conservative, the • Portfolio WAM: 49 days (maximum allowed) following was assumed: • Rate increase occurs all in one day (vs. over the course of a week or month, as is typical) Note:30-day prime commercial paper quoted Jan. 1982 – Dec. 1996; 30-day AA financial commercial paper quoted Jan. 1997 – May 2010 Source: Federal Reserve 2901/10/2011 Treasury Bill Yields Have Rarely Increased More Than 200 bps Over a Month Rate increase statistics: • Largest: ~350 bps (1982) • Excluding 1982, other largest increases were: 2007/8 150 b• : ~ ps • 1998: ~100 bps • 1994: ~90 bps • 1987: ~90 bps All increases >200 bps occurred in January 1982 Maximum 90-day T-bill yield increases (bps) * Occurrence defined as (overlapping) month long change in quoted rate for every trading day in the period. There were 7378 occurrences in total; 3686 decreasing occurrences not shown. Source: Federal Reserve; 90-day constant maturity Treasuries, Jan. 1982 – May 2010 3001/10/2011 [within 30-day windows] Even With the Largest Historical Treasury Bill Increase of 350 bps, Capital Ratio Would Decline by Only 0.35% Key assumptions To be conservative, the following was assumed: • Maximum allowed WAM of 49 days Portfolio incl des the• u maximum allowable 60- day CP: • 25% 60-day • 75% 30 day - • Rate increase occurs all in one day (vs. over the course of a week or month, as is typical) Source: Federal Reserve Note: 30-day prime commercial paper quoted Jan. 1982 – Dec. 1996; 30-day AA financial commercial paper quoted Jan. 1997 – May 2010 3101/10/2011 Spread Between Discount Window Rates and CP Yields Have Reached 100 bps… Cost of borrowing higher than CP yield Spread between primary credit rate and CP yield* Primary credit rate dropped below Cost of borrowing lower than CP yield CP yield from mid-2008 through mid-2009 Under current design, access fee is greater of 25bps or the spread between rates *Calculated as primary credit rate minus CP dealer-placed top 90 yield Notes: Penalty rate methodology changed on 1/6/03 (raised from .75% to 2.25%); set to 1% above funds rate to encourage interbank borrowing Source:

Federal Reserve; Bloomberg 3201/10/2011 …But Even Without Scaling Access Fees, Impact to LF Capital Ratios is Unlikely to Exceed 0.1% Key assumptions • Access fee: 25 bps • WAM: 49 days • 2/3 of assets funded at the primary credit rate • Spread: 100 bps Sample calculation: • (100 spread – 25 bps fee) x (49/360 days) x (2/3 loan % of assets) = 7 bps Spread between primary credit rate and CP yield* *Calculated as primary credit rate minus CP dealer-placed top 90 yield Source: Federal Reserve; Bloomberg 3301/10/2011 C bi i W t C Hi t i l S i l i… om n ng ors ase s or ca cenar os mpa rs Capital, but Given Short Maturities LF Can Deleverage Quickly Without Selling Assets • In the event of a significant capital impairment, the LF can quickly deleverage as the CP matures 0.2% • Commitment fees represent a significant income stream to rebuild capital • 1 CP default, no recovery • 170 bps increase (2008 crisis max) • 1% penalty rate- CP yield spread • 350 bps (implies largest hist. yield increase for AA CP) 3 CP d f l3 0 b i Worst-case scenario Scenario 1 S i 2 00 b 34 • e au ts, 50% recovery • 5 ps ncrease (historical worst case, 1982) cenar o • 7 ps (implies 2X largest historical yield increase for AA CP) Source: LF financial model 01/10/2011 Governance LF Will be Directed by a 15 Person Board of Directors* Board composition • 2 LF employees: Chairman/CEO and COO • 5 independent directors • 8 directors from member funds, with representation from large, medium and smaller funds • Envisioned to have audit, investment, and compensation committees • Act on behalf of shareholders (i.e., member funds) • Oversee activities of LF, review performance • Oversee compliance with regulatory requirements S l t l t i t tiBoard duties/ activities • e ec , eva ua e, approve appropr a e compensa on • Review and approve contracts with third-party service providers • Review policies (commitment fee, LF time deposits) and amend if necessary • Rule on issues brought by bank management • Decide on specific exceptions to LF policies * A recommendation, final Board size & composition will be subject to regulatory approval 3601/10/2011 Normal and Liquidity Mode Activities, by Business Capabilities Normal mode activities Liquidity mode activities • Oversee activities; rule on issues brought by bank management • Approve contracts with third party service providers • Decide on exceptions to access/other policies of LF • Manage and trade Treasury/agency portfolio as well as testing of LF (light trading of prime securities) • Perform credit analysis to establish ranking of approved investments to be accepted by LF • Manage relationship with potential outsource providers (e g • Manage and trade received prime securities • Collect access fee from funds utilizing LF • Manage interface with Federal Reserve to access discount window + . ., provider of custodial services) • Issue LF time deposits, manage true-up process, and pay interest on time deposits • Provide ALM; work with MMF to ensure portfolio is managed to liquidity needs (manage interest rate and liquidity risk) • Determine exceptions/issues to raise to Board • Control and enforce policies for access to the LF • Receive and process requests for liquidity from MMFs • Decide which investments to accept from member funds; enforce issuer/industry concentration rules • Collect commitment fee • Manage corporate/back office functions of LF (e.g., payroll, accounting, reporting) • Interface with regulatory agencies • Liaise with member funds making requests to LF and explain process • Manage process of issuing money to member funds • Liaise with Board when exceptions are requested • Report to funds on portfolio info Board of Directors • Collect and analyze data from funds • Monitor trends in AUM levels; understand issuer and industry concentration levels Facility/bank function Fund interface function Money management function 3701/10/2011 LF Organizational and Infrastructure Needs by Business Capability IT infrastructure/ systems maintenanceBoard of Directors Staff Systems Money market fund function Costs shared across functions Back office functions (e.g., accounting, HR) Chairman/Chief Executive Officer (CEO) Administrative Support Facility/bank function Fund interface function Legal fees (ongoing) President/Chief Operations Officer TreasurerCounsel Portfolio Managers/ Traders Chief Investment Officer (CIO) Property/ facilities Industry Analysts/Loan Officers Chief Risk/ Oversight Officer (CRO) Chief Financial Officer

(CFO)Regulatory Officer Senior Operations Officer (Manager) D&O/E&O insuranceAccounting/ Reporting Credit AnalystsTechnology Manager Treasury Managers Regulatory/ Member Fund Liaisons Credit Analyst Support Staff MMF custodial and research systems Human Resources Manager Treasury Analysts Note: Some roles may be outsourced; personnel may take multiple roles 3801/10/2011 LF May Have Outsourced Relationships with Third-Party Providers Liquidity Facility Issues • Ensure ALM; work with MMF to ensure portfolio is managed to liquidity needs • Determine exceptions/issues to raise to Board • Control and enforce access policies • True-up LF time deposits • Pay commitment fee • Make liquidity requests and receive cash Funds Fund data Liquidity requests Back office services • Various providers of corporate: - Accounting and audit - Legal counsel Decisions • Manage interface with discount window • Manage and supervise outsource providers • Collect and analyze AUM and portfolio data • Decide securities to accept from each fund; manage liquidity requests; reporting to funds • Pay access fee Approved liquidity requests Italics denote liquidity mode - Payroll/benefits/HR mgmt - IT systems Commitment fee; additional time deposit buy-in; access fee Asset info; LF time deposit info; service fee Cash position for retained earnings Return on LF time depositsPortfolio data; service fee Credit analysis; ranked list Third party provider activities • Safekeeping and accounting of LF assets • Manage cash movements involved in settling trades, receiving income payments, paying expenses, issuing LF time deposits, collecting commitment fee, collecting access fee Issue LF time deposits manage true up process and pay Custodian / Issuance AgentInvestment Adviser Credit analysis • Establish approved investment list per LF mandate • Advise LF staff on liquidity operations Treasury/agency mgmt. • Manage and trade Treasury/agency portfolio; light trading of prime securities Manage and trade prime • , - , interest• Monitor CP portfolio performance • securities 3901/10/2011 Governance: Key Decisions and Roles (1/3) ASSET POLICIES R = Recommend A = Agree I = Input D = Decide 1.1 Change the investments that may be held by the bank in normal mode I R D To be notified I To be notified 1.2 Add a new category of securities to the approved list R A D To be notified I To be notified 1.3 Define the approved list R D I 1.4 Extend the duration of securities accepted by the LF beyond initial charter I R A D To be notified To be notified 1.5 Change allowable issuer concentration levels I R A D To be notified 1.6 Change provider(s) of asset mgmt services R A D To be notified 1 7 E t bli h ll bl d f d t i i FMV1 I* R* D* * * To be . s a s a owa e proce ures or e erm n ng notified 1.8 Decide on 'fair market value' of a security that lacks a recent quote1 * D* * * R* *Indicates that accounting treatment is TBD. Often in an investment context, the custodian would provide the independent ‘mark’ on daily price (valuation service). 4001/10/2011 Governance: Key Decisions and Roles (2/3) EXCHANGE POLICIES2 2.1 Extend liquidity up to specified percentage of a fund's assets I D To be notified To be notified To be notified 2.2 Extend liquidity beyond specified percentage I R D To be notified To be notified 2.7 Transact with a fund that does not meet stated access policies R D f h f d h d d2.8 Re use to transact wit a un t at oes not meet state access policies D To be notified 2.9 Refuse to transact with a fund below specified threshold that meets stated access policies R D 4101/10/2011 Governance: Key Decisions and Roles (3/3) FEES 3.1 Access: Waive or reduce fees to a given fund I R D 3.2 Access: Raise or lower fees for all funds I R A D 3.3 Commitment: Raise beyond 3 bps R D To be notified FEES/BUDGET 4.1 Approve annual expense budget R D 4.2 Approve mgmt compensation D 4.3 Approve contracts with annual value > $1M R D CAPITALIZATION 5.1 Change the 4.9% equity cap or $250K equity minimum R A D To be notified 5.2 Revise the time deposit note issuance process R D To be notified To be notified 5.3 Waive 'true-up' requirements (e.g., for orderly MMF liquidation) R D 5.5 Change timing of equity true-ups R D To be notified BOARD OF DIRECTORS 6.1 Elect / re-elect members D To be notified 6.2 Change the size of the board D To be notified 4201/10/2011 Modeling LF Financial Model Assumptions Fees Market Commitment fee 3 bps Total prime MMF AUM

$1.650B* Financial statements Market and stress tests Access fee (annual) 25 bps Fund weekly liquidity (2a-7 requirements) 30% Taxes Tax rate 40% Commercial paper Yield 2.7% Expenses Weighted average maturity 49 days Technology $20M Market value loss 1% Staff $18M Infrastructure/other $10M Treasuries St t t $10M Yi ld 1 7%ar up cos s e . Discount Window Capitalization Collateral margin 3% LF time deposits max. % AUM 1.3%, beginning in year 3 Discount rate 2.5% LF target leverage ratio 5% Initial equity stake $350M Capital risk-weighting of commercial paper 20% 44 * As of 8/31/10 01/10/2011 LF Key Design Levers and Rationale Initial equity contribution $350M • Should not create a significant barrier to entry and is not punitive to smaller funds • Raising the initial contribution has little impact on long-term LF capacity or Lever Suggested level Rationale a c i t y leverage ratios Time deposits as % of AUM Up to 1.3%, beginning in year 3 • Delayed issuance will allow sufficient capital to accumulate to ensure timely payment of time deposit obligations C i f 3 b • Allows the LF to build equity (and therefore capacity) at a reasonable rateI m p a c t L F c a p a omm tment ee ps • Can be increased as yields increase, allowing capacity to grow faster Target leverage ratio 5% • Recognizes that the LF holds a low-risk portfolio of assets • Maximizes LF capacity while maintaining compatibility with current banking regulatory capital control levels • Long enough to cover a large share of MMF assets without drawing on the d n t WAM and duration of CP portfolio 49 days securities marked for near-term liquidity needs • Short enough to limit LF exposure to credit, rate, and liquidity risks • Shorter WAM limits FMV/AC* divergence WAM and duration of 90 d • Allows duration matching to the 90 day time deposits I m p a c t f u n d m a n a g e m e n Treasury bills ays • Short enough to limit LF exposure to interest rate risk, while still allowing LF management flexibility to manage across full spectrum of potential T-bill terms * FMV/AC divergence is the current discount between the fair market value (FMV) of an exchanged security and the amortized cost (AC) price at which the security was exchanged 4501/10/2011 Regulatory Issues LF Must be Mandatory for All Prime MMFs Mandatory participation required Description: • Mandatory participation of all prime MMFs in LF is required through regulatory or other means (or funds could choose between participating in LF or adopting alternative such as floating NAV or converting to government MMF) Pros: • Industry-wide solution; no “free rider” issues • Better supports short-term market values in times of market stress • LF capacity grows faster • Similar to SIPC and FINRA membership requirements Cons: • Less flexibility for funds • May be viewed by some as expensive 4701/10/2011 Potential Issues for SEC Mandatory participation and fund policies • In order to ensure fairness among funds, raise necessary capital, and prevent free-riders, SEC will need to directly or indirectly make participation in the LF mandatory • As Chairman indicated, participation in LF by prime funds could be condition to continued use of amortized cost Joint transactions • Section 17(d) restricts “joint transactions” between a fund and its adviser where the fund participates on a different or less advantageous basis ▪ LF will be capitalized by both funds (through commitment fees) and their advisers (through equity) “Joint transaction” issues may arise and relief may be necessary▪ Retained Earnings Solution • Goal is for retained earning to accrue to benefit of MMFs • Confirmation that proposed retained earnings solution acceptable (see next page) 4801/10/2011 Potential Structure to Ensure that Retained Earnings Accrue to Benefit of the Funds Shareholder agreement stipulates that retained earnings will be held in a trust benefitting funds upon liquidation Agreement between sponsors and trust Liquidity Facility Sponsors Initial capital Articles of incorporation Common shares Return of A A Legal entity Monetary exchange Contract X LF equity Linked exchange/contract Commitment fee Retained earnings (RE) Common stock Retained earnings capital (on liquidation*) A C C Agree- ment C Trust RE (upon liquidation) Funds C * Or upon relinquishment of shares upon exit from money market industry (or during equity true-up process) 4901/10/2011