



Making the Most Out of Cash: Bank Fees and Beyond

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Overview: GFOA Best Practices

Due Diligence on Bank and Treasury Management Providers

The Government Finance Officers Association (GFOA) recommends that government treasury practitioners review the regulated banks, regulated and non-regulated bank partners, and non-bank companies that process, validate, transfer, disburse and 'hold on deposit' cash and near cash assets and apply prudent due diligence throughout the life of the relationship.

- Governments have fiduciary duties to protect and safeguard the public funds entrusted to them, one of which is the proper selection of and ongoing oversight of bank and non-bank depositories and treasury management service providers.
 - review the quarterly and annual financial reports of key counterparty banks as well as summary reports retrieved from each bank's regulator
 - evaluate their key bank(s) and issue an internal Bank Review Summary on a quarterly basis
 - the government's operating relationship with a bank or non-bank processor of cash and near cash assets needs to be managed pro-actively through:
 - **Relationship Management**
 - **Bank Review Summary**
 - **Monitoring Financial Conditions**

Relationship Management

- Maintain a current knowledge of the products, services and exposures that the government maintains with the bank or non-bank
- Create policies and procedures for all of the activities and interactions involving the bank or non-bank, including techniques to control misuse of government assets and plans to respond to any variance from policy.
- Be aware of the competitors and their ability to replace the bank or non-bank in the event of a temporary or permanent interruption of service or change of bank or non-bank
- Particularly for sensitive products like payroll, make certain that an emergency back-up plan is available in the event that the bank is unable to process for the government;
- Develop an action plan in the event of a confidential information breach internally or at the bank or non-bank.
- Prepare a comprehensive business resumption plan for all of the services used from the bank or non-bank to respond to any emergency disruption of service, whether internal to the government or caused by the bank or non-bank, and to assure the on-going availability of disaster recovery and that those plans are tested frequently, both internally and against the bank or non-bank's business continuity plans.

Bank Review Summary

- Identify the government's product usage at the bank
- Describe the government's exposure at the bank (balance levels, exposure to product issues, etc.)
- Evaluate changes in the bank's financial condition
- Report whether the bank's Credit Rating Agency scores meet or exceed established minimum thresholds
- Review any recent news including management changes, legal and regulatory actions, key product changes, changes in market capitalization, mergers or acquisitions, and any other meaningful financial events that may change the bank's condition, status or abilities
- Consider the actions required of the government in the event that the bank no longer qualifies as an approved depository/counterparty for the government.

Monitoring Financial Conditions

A review of the monthly account analysis statement or invoice to determine if volume counts are appropriate and consistent and to be sure that contract pricing is properly applied to the account analysis or invoice. Use the account analysis/invoice as well as internal knowledge to determine if product usage is appropriate from month to month.

For example:

1. Should new products available in the marketplace replace existing product choices?
2. Are there less expensive ways available to process the transactions without giving up important value?
3. Can transactions be processed more safely?

A review of the financial condition of the banks or non-banks as well as continual scan of news reports that may indicate changes in bank or non-bank financial performance or strategies. Conduct quarterly relationship review meetings with representatives of the bank or non-bank to maintain open communications, exchange ideas for improvement and stay informed of developments at the bank or non-bank.

1. Large banks and non-bank relationships should be reviewed quarterly.
2. Small banks and non-bank relationship should be reviewed annually.

The Banking Crisis: A Timeline of Silicon Valley Bank's Collapse and Other Key Events

The latest on the fallout that followed and regulators' response

CFO JOURNAL

SVB Collapse Spurs Finance Executives to Re-Evaluate Cash Strategies

Some companies are working to diversify their bank accounts, others are waiting and tracking the tech-focused bank's fate

“The big lesson is that you can’t assume that a bank is too big to fail,” said David Henry, chief financial officer at medical-robotics maker [Myomo](#) Inc. “You have to be in position to have your cash as diversified as you can.”



Diversification

Monthly Review

Bank Statement

Daily / monthly report that summarizes all debits and credits for the month, including the amounts of each, and a daily balance.

Account Analysis

Monthly report that has the inventory of all services utilized during the month, including the name of each service, the volume used, the price point, and the total cost.

Also shows the average daily ledger & collected balance for the month, and the earnings credit rate with related compensation to offset the fees.

Why You Should Pay Attention – Example #1

PRODUCT LINE AND DESCRIPTION	BANK SERVICE CODE	AFP SERVICE CODE	UNIT PRICE (\$)	VOLUME	SERVICE CHARGE (\$)	BALANCE EQUIVALENT (\$)	FEE-BASED CHARGES (\$)
DISBURSEMENT SERVICES							
CHECKS/DEBITS POSTED	02285	010100	.1000	343	34.30	75,876	.00
CONT DISB FUNDING TRANSFER	05234	010112	.7000	44	30.80	68,133	.00
CHECK PHOTOCOPY RETRIEVAL	01030	010610	15.0000	14	210.00	464,545	.00
CONT DISB MAINTENANCE	02205	150000	100.0000	1	100.00	221,212	.00
CONT DISB CHECKS PAID	02210	150110	.1600	643	102.88	227,583	.00
STOP PAYMENT AUTOMATIC RENEWAL	02338	150510	4.0000	12	48.00	106,182	.00
OFFICIAL CHECKS	02325	150511	10.0000	1	10.00	22,121	.00
IMAGE RETENTION PER ITEM	03495	159999	.0300	620	18.60	41,145	.00
PWS EXT PAID CHECK RETN 84 MO	06634	159999	.0500	620	31.00	68,576	.00
PWS CHECK SERVICES MAINTENANCE	06618	999999	35.0000	1	35.00	0	.00
PWS RECON REPORTS/STATEMENTS	06620	999999	.0000	1	.00	0	.00
PWS EMAIL EXCEPT NOTIF	06625	999999	10.0000	1	10.00	22,121	.00
PWS EXTENDED REPORT RETENTION	06626	999999	.0000	7	.00	0	.00
SUBTOTAL					630.58	1,317,495	
DISBURSEMENT SERVICES							
CHECK / DEBIT POSTED	02285	010100	.1000	541	54.10	119,676	.00
CONTROLLED DISB FUNDING	05234	010112	.7000	44	30.80	68,133	.00
CONTROLLED DISB ACCT MAINT	02205	150000	100.0000	1	100.00	221,212	.00
CONTROLLED DISB CHECK POSTED	02210	150110	.1600	591	94.56	209,178	.00
STOP PAYMENT AUTOMATIC RENEWAL	02338	150510	4.0000	4	16.00	35,394	.00
IMAGE STORAGE PER ITEM	03495	159999	.0300	1,376	41.28	91,051	.00
PWS EXT PAID CHECK RETN 84 MO	06634	159999	.0500	1,376	68.80	151,751	.00
DATA DOWNLOAD	06641	200201	20.0000	112	2,240.00	4,778,181	.00
ISSUE INPUT UPLOAD	06644	200201	1.0000	4	4.00	8,848	.00
PWS CHECK INQUIRY MAINTANANCE	06618	999999	5.0000	144	720.00	0	.00
PWS RECON REPORT/STMT MAINT	06620	999999	.0000	147	.00	0	.00
PWS EXCEPTION NOTIF-ACCT	06625	999999	10.0000	48	480.00	1,061,818	.00
PWS EXTENDED REPORT RETENTION	06626	999999	.0000	1,071	.00	0	.00
SUBTOTAL					3,849.54	6,745,243	

\$3,219 * 12 = \$38,628 in extra fees

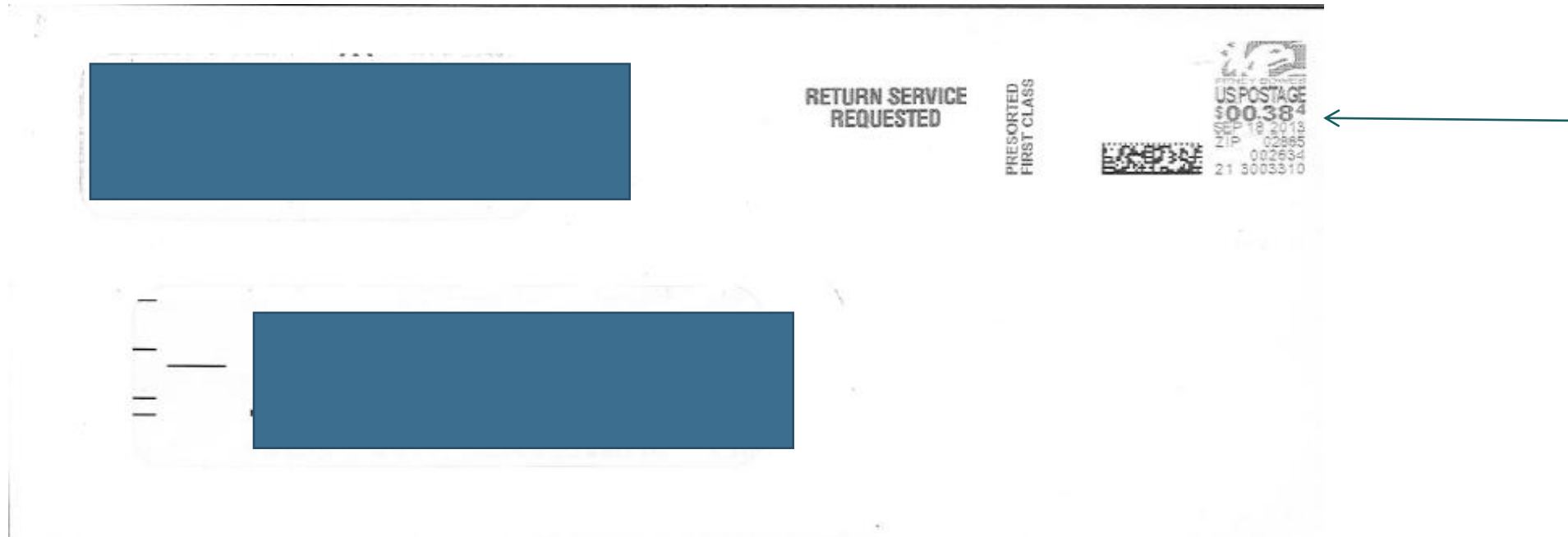
Why You Should Pay Attention – Example #2

Group / Service Name	Volume	Price	Total Cost
INFORMATION SERVICES			
SWIFT MT-OUTGO PDR BAL REPT	1	.0000	.00
SWIFT MT-OUTGO PDR DET REPT	1	.0000	.00
SWIFT MT-OUTGO PDR PER ITEM	1	.0000	.00
DIRECT PREVIOUS DAY ACCT	10	20.0000	200.00
DIRECT CURRENT DAY ACCT	10	25.0000	250.00
DIRECT PREVIOUS DAY MAX ITEM	2	.1500	.30
DIRECT CURRENT DAY STD ITEM	564	.2200	124.08
DIRECT PREVIOUS DAY ENT ITEM	589	.1200	70.68
BUS SUITE ACCT MGMT SERVICES	2	15.0000	40.00
SWIFT MT-OUTGO CDR DET RPT	11	.0000	.00
SWIFT MT-OUTGO CDR PER ITEM	686	.0000	.00

$$2 * \$15.00 = \$40.00 ??$$

Why You Should Pay Attention – Example #3

Service Code	Group / Service Name	Volume	Price	Total Cost
77007342	CHECK ISSUANCE-FIXED	1	60.000	60.00
77030034	CHECK ISSUANCE SAME DAY ITEMS	11,360	0.190	2,158.40
81243506	CW-PPD REMITTANCE PAGES	3,613	0.0775	280.01
77011187	CHECK ISSUANCE SPECIAL HANDLING	5	0.388	1.94
81243522	CHECK ISSUANCE POSTAGE	12,091	0.395	4,775.95
77010000	CHECK ISSUANCE FOREIGN ITEMS	118	0.783	92.41
TOTAL CHECK ISSUANCE				7,376.68



Why You Should Pay Attention – Example #4

Svc Code	AFP Code	Service Description	Unit Price	Volume	Service Charges
16010	01 0000	Remote Dep Capture Location MO Base	35.00000	1.00	35.00
16010	01 0000	Remote Dep Capture Location MO Base	70.00000	1.00	70.00
22056	01 0000	Account Maintenance-Restricted Acct	0.00000	3.00	0.00
ZBABC	01 0021	Zero Balance Monthly Base	12.00000	51.00	612.00
CK021	01 0100	Debits Posted	0.12000	1,160.00	139.20
CK011	01 0101	Credits Posted	0.40000	1,105.00	442.00
CK049	01 0310	DDA Statement - Paper	0.00000	22.00	0.00
CK183	01 0320	DDA Statement - Special Instruction	0.56000	1.00	0.56
		General Account Services			2,180.48

Two distinct accounts were paying different price points for the same service.

Do You Know What the ECR is on your Account?

Are you able to negotiate the ECR with the bank? Have you tried?

What does the Excess Balance earn?

Is the ECR locked in for a period of time?

Hard Dollar versus Soft Dollar Fees



Banking Earnings Credit Rate/Compensating Balance and Excess Balance

- ✓ Banks typically offer an Earnings Credit Rate (ECR): the interest rate paid for bank balances held to cover the cost of banking fees
- ✓ The \$ balance to cover fees is called a compensating balance
- ✓ Balances above the Compensating Balance amount is called the Excess Balance
- ✓ The Compensating Balance can be an attractive approach since it eliminates a cost that is budgeted as an expense
- ✓ The ECR is generally favorable compared to alternatives such as MMF and LGIP yields (not in 2022 or 2023)
- ✓ The ECR is often tied to the Federal Funds rate (+/-) although there may be a minimum or maximum rate in the contract
- ✓ The Excess Balance rate is often lower than the ECR; could be missing out on earning potential by keeping Excess Balances at the bank
- ✓ The ECR can be misleading as a higher ECR may be offered simply to offset higher fees

Account Analysis

- ✓ Focus today is on the Excess Balance
- ✓ For a full account analysis review, at least 12 months of account analysis statements are helpful for determining the average monthly volume for each fee and the average total fee
- ✓ This average can then be used to calculate the \$ amount needed for the Compensating Balance that earns the ECR and the \$ that is the Excess Balance that is generally earning a lower rate
- ✓ The easy approach is to create a spreadsheet that includes the fees from the account analysis statement and incorporate a column with the fees per item and then add columns for each month of data to calculate the average per item times the fee
- ✓ Not every month will have the same items so the process will initially involve adding lines to each section based on the services used during the month

Account Analysis Statement

✓ This is an example account analysis summary of the balances, fees, and earnings.

- ✓ Average Ledger Balance
- ✓ Average Collected Balance (Ledger less Float)
- ✓ Average Positive Collected
- ✓ Less Reserves
- ✓ **Average Available Balance**
- ✓ **Net Analysis Position (ECR for Fees)**
- ✓ **Excess Balances**

April, 2018

Balances		
Average Positive Ledger Balance		\$43,784,639.59
Average Ledger Balance		\$43,784,639.59
Less: Average Float		\$228,649.83
Average Collected Balance	→	\$43,555,989.76
Average Negative Collected Balance		\$0.00
Average Positive Collected Balance		\$43,555,989.76
Less: 0.00% Related Reserves		\$0.00
Average Available Balance	→	\$43,555,989.76
Net Analysis Position		
Value Of Applicable Available Balance	→	\$23,269.64
Earnings Credit Rate	→	0.65%
Less: Balance Based Charges	→	\$3,776.89
Net Analysis Position	→	\$19,492.75
Excess Balances Available to Earn Interest	→	\$36,486,444.81
Interest on Excess Balances at 0.12%	←	\$3,598.66
Interest to be Posted To Account	→	\$3,598.66

Account Analysis Statement

- ✓ Each line item is a service offered by the bank.
- ✓ Most banks offer many of the same services although the name may be different.
- ✓ Not all items will be used every month – this is why having at least 12 months is useful for the analysis.
- ✓ Volumes for each item will vary by month.

Services Provided For This Period		Volume	Unit Price	Svc Charges	Bal Required
Demand Deposit Services					
3021	Account Maintenance - Monthly	4	5.0000	\$20.00	\$37,435.90
3893	Relationship Analysis Stmt	1	0.0000	\$0.00	\$0.00
3894	Analysis Deposit Account Stmt	4	0.0000	\$0.00	\$0.00
3268	Electronic Credits Posted	256	0.0800	\$20.48	\$38,334.36
3651	Items Deposited	4,174	0.0700	\$292.18	\$546,901.03
3261	Items Paid Not Enclosed	631	0.0500	\$31.55	\$59,055.13
3267	Electronic Debits Posted	69	0.0800	\$5.52	\$10,332.31
3005	Other Miscellaneous Debits	7	0.0700	\$0.49	\$917.18
3258	Check Cashing Fee	12	0.0000	\$0.00	\$0.00
				subtotal:	\$370.22
					\$692,975.91
Zero Balance Services					
36654	ZBA Master Account	1	10.0000	\$10.00	\$18,717.95
36655	ZBA Sub Account	2	5.0000	\$10.00	\$18,717.95
				subtotal:	\$20.00
					\$37,435.90
Image Cash Letter					
5709	ICL Transmission-Per Trans	21	12.0000	\$252.00	\$471,692.31
5710	ICL Record-Per Record	4,445	0.0000	\$0.00	\$0.00
5748	ICL Deposits Credited	21	0.6000	\$12.60	\$23,584.61
5750	ICL On-Us Items	1,789	0.0400	\$71.56	\$133,945.64
5760	ICL Transit Items	20,210	0.0600	\$1,212.60	\$2,269,738.46
				subtotal:	\$1,548.76
					\$2,898,961.02
Returned Check Services					
6631	Deposited Item Returned	17	2.0000	\$34.00	\$63,641.03
6623	Return Items-Special Address	14	0.0000	\$0.00	\$0.00

Calculating Compensating and Excess Balances

✓ This is an example account analysis summary of the balances, fees, and earnings.

	A	B	C	D
	Balances *	Annual Rate*	Service Charges*	Earnings Per Month
1	Average Available Balance	\$ 43,555,989.76		
2	Compensating Balance (ECR 0.65%)	\$ 6,972,720.00	0.65% \$ 3,776.89	
3	Excess Balance (0.12%)	\$ 36,583,269.76	0.12%	\$ 3,658.33

*From Account Analysis Statement



- ✓ Compensating Balance is calculated by dividing the Service Charges by the ECR X 12 months
- ✓ Excess Balance is calculated by subtracting Compensating Balance from Average Available Balance
- ✓ Excess Balance monthly earnings calculate by multiplying Excess Balance X Excess Balance Rate

$(C2/B2) * 12 = A2$

$A1 - A2 = A3$

$(A3 * B3) / 12$

Calculating Earning Comparison Bank Excess Rate vs. LGIP Yield

- ✓ Calculate amount permitted for LGIP.
- ✓ Total should include Investments, Bank balances and current LGIP holdings (important: verify investment policy language)

Average Available Bank Balance	\$	43,555,989.76
Portfolio #1		3,312,355.42
Portfolio #2		11,897,288.21
Portfolio #3		23,247,302.58
Portfolio #4		4,175,654.74
LGIP Balances		-
Total Assets within Investment Policy	\$	86,188,590.71

Calculating Earning Comparison Bank Excess Rate vs. LGIP Yield

- ✓ Calculate amount permitted for LGIP.
- ✓ Total should include Investments, Bank balances and current LGIP holdings (important: verify investment policy language)

Asset Allocation Calculation		Permitted LGIP Allocation	A	B	C
				Annual Rate**	Earnings Per Month**
1	Total Assets		\$ 86,188,590.71		
2	Excess Balances Available		\$ 36,583,269.76		
3	LGIP 25% of Total Assets	25%	\$ 21,547,147.68	0.25%	\$ 4,488.99
4	Remaining Excess Balance above permitted LGIP		\$ 15,036,122.08	0.00%	\$ -
5	Excess Balance and Excess Balance Earnings		\$ 36,583,269.76	0.00%	\$ -
6	Earnings Above Excess				\$ 4,488.99

- ✓ Total Assets (A1) based on sum of all cash and investment holdings.
- ✓ Excess Balances (A2) from Account Analysis Statement.
- ✓ LGIP potential based on permitted investment language (A1*25% in our example). Remaining Excess Balance (A4) may be invested other than LGIP.



Bank Account Analysis

Earnings Credit Rate (ECR)/Compensating Balances

- This option avoids having to pay an actual invoice – the fees are paid from the earnings based on the rate (ECR)
- It is important to understand the fees and the ECR
- High fees can be offset by a higher ECR rate
- ECR is often lower than what can be earned in a LGIP or MMF
- Interest rates offered above balances required for fees (compensating balance) are usually lower than the ECR.
- There may be an opportunity to earn higher interest earnings by utilizing a daily liquidity investment other than within the demand deposit account.

Objectives of Cash Flow Forecasting

- Ensure sufficient liquidity for 6 to 12-month disbursements
- Improve investment earnings
 - Matching sources and uses of funds
 - Managing investment risks
 - Liquidity risk
 - Market risk
- Identify Short-term Cash Deficits
- Warn of Impending Budget Problems

The Forecasting Process

- Review Historical Cash Flows
 - More data is better
 - Daily for 12 months, monthly for 5 years
 - Worry about the big rocks
 - Recurring versus Non-Recurring
 - Through various economic cycles
- What is the lowest fund balance?
- What IF?
- Seasonal Issues
- Identify Growth Trends
 - Property values increasing due to a strong economy or a hot housing market (or the reverse like 2009!)
- Project Future Balances

“Don’t Have the Time”



Investing in a Rising Interest Rate Environment

Month	Monthly Yield	Monthly Income	Annual Income*
Jan-21	0.06%	\$ 5,096	
Feb-21	0.05%	3,836	
Mar-21	0.05%	4,247	
Apr-21	0.04%	3,288	
May-21	0.04%	3,058	
Jun-21	0.04%	2,877	
Jul-21	0.04%	3,567	
Aug-21	0.05%	3,822	
Sep-21	0.04%	3,616	
Oct-21	0.05%	4,247	
Nov-21	0.05%	4,110	
Dec-21	0.05%	4,247	\$ 46,008
Jan-22	0.06%	5,096	
Feb-22	0.09%	6,904	
Mar-22	0.17%	14,438	
Apr-22	0.34%	27,945	
May-22	0.68%	57,753	
Jun-22	1.08%	88,767	
Jul-22	1.56%	132,493	
Aug-22	2.13%	180,904	
Sep-22	2.37%	194,795	
Oct-22	2.87%	243,753	
Nov-22	3.58%	294,247	
Dec-22	3.92%	332,932	\$ 1,580,027

As the Fed was aggressively raising interest rates in 2022, LGIPs and its participants benefited as seen by the chart to the left.

Over 2021, a \$100 million investment in Georgia Fund I earned a mere \$46,008

In 2022, the rate paid out in May 2022 (0.68%) provided more income that month than for all of 2021.

A \$100 million investment earned \$1,580,027 in 2022!

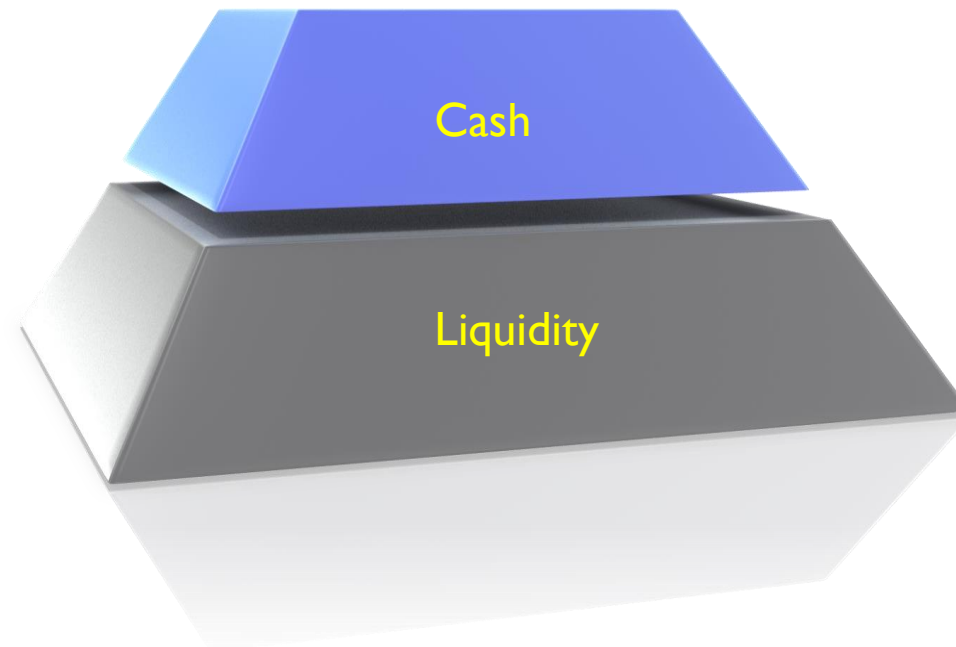
*Assume \$100 million investment and no reinvestment of interest income

Source: ost.georgia.gov as of 1.18.2023

Past performance is not an indication of future performance. Any financial and/or investment decision may incur losses.

Please refer to the Disclosures slide for additional information

Lack of Cash Flow Analysis



Rates Rise, Rates Fall Know Your Cashflow!

Month	Monthly Yield	Monthly Income	Annual Income*
Jan-19	2.43%	\$ 206,384	
Feb-19	2.43%	186,411	
Mar-19	2.44%	207,233	
Apr-19	2.45%	201,370	
May-19	2.42%	205,534	
Jun-19	2.41%	198,082	
Jul-19	2.39%	202,986	
Aug-19	2.20%	186,849	
Sep-19	2.08%	170,959	
Oct-19	1.89%	160,521	
Nov-19	1.69%	138,904	
Dec-19	1.62%	137,589	\$ 2,202,822
Jan-20	1.60%	135,890	
Feb-20	1.60%	127,123	
Mar-20	1.17%	99,370	
Apr-20	0.80%	65,753	
May-20	0.50%	42,466	
Jun-20	0.25%	20,548	
Jul-20	0.20%	16,986	
Aug-20	0.15%	12,740	
Sep-20	0.11%	9,041	
Oct-20	0.10%	8,493	
Nov-20	0.07%	5,753	
Dec-20	0.06%	5,096	\$ 549,260

The Fed began lowering interest rates in late 2019 and to zero in 2020 in response to the COVID pandemic. LGIPs and its participants saw monthly income fall from early 2019.

Over 2019, a \$100 million investment in Georgia Fund I earned \$2.2 million

In 2020, a \$100 million investment in Georgia Fund I earned a mere \$549,260

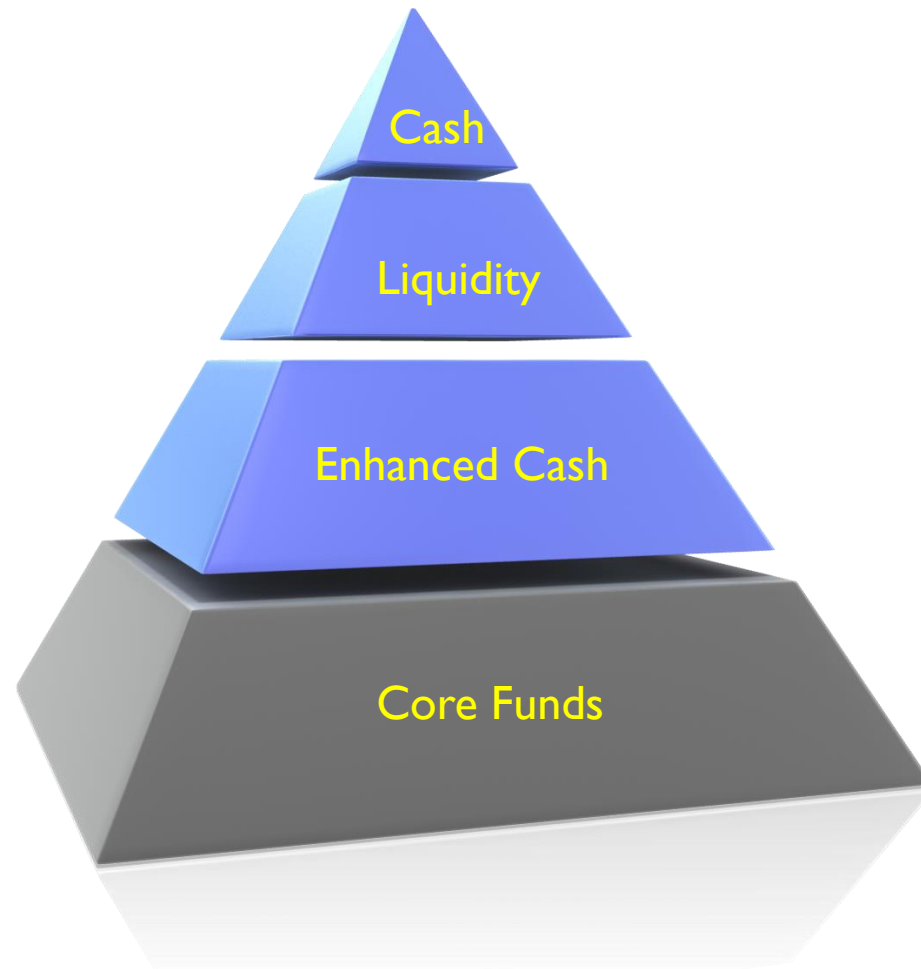
*Assume \$100 million investment and no reinvestment of interest income

Source: ost.georgia.gov as of 1.18.2023

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Analyzing Cash Flow: Building the Perfect Pyramid



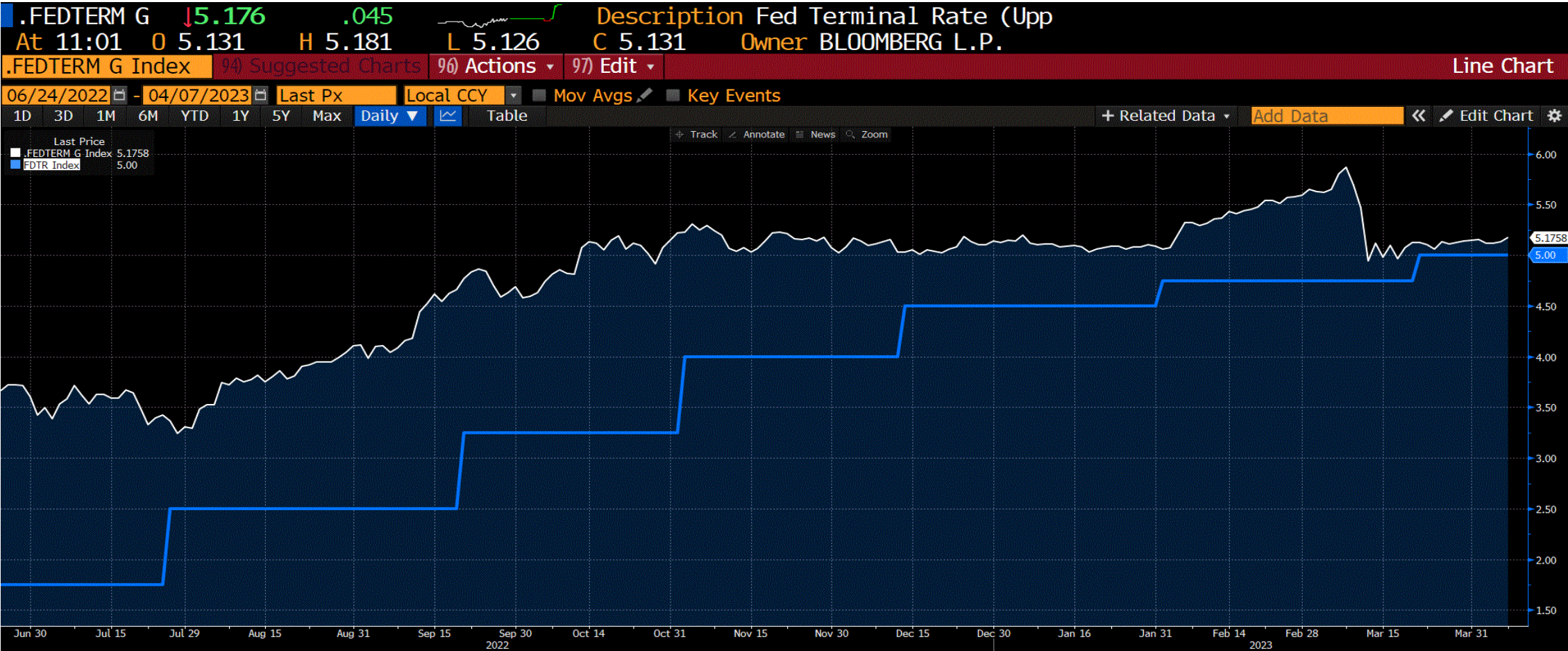
Rates Higher – For How Much Longer?



The History of the Two-Year Treasury



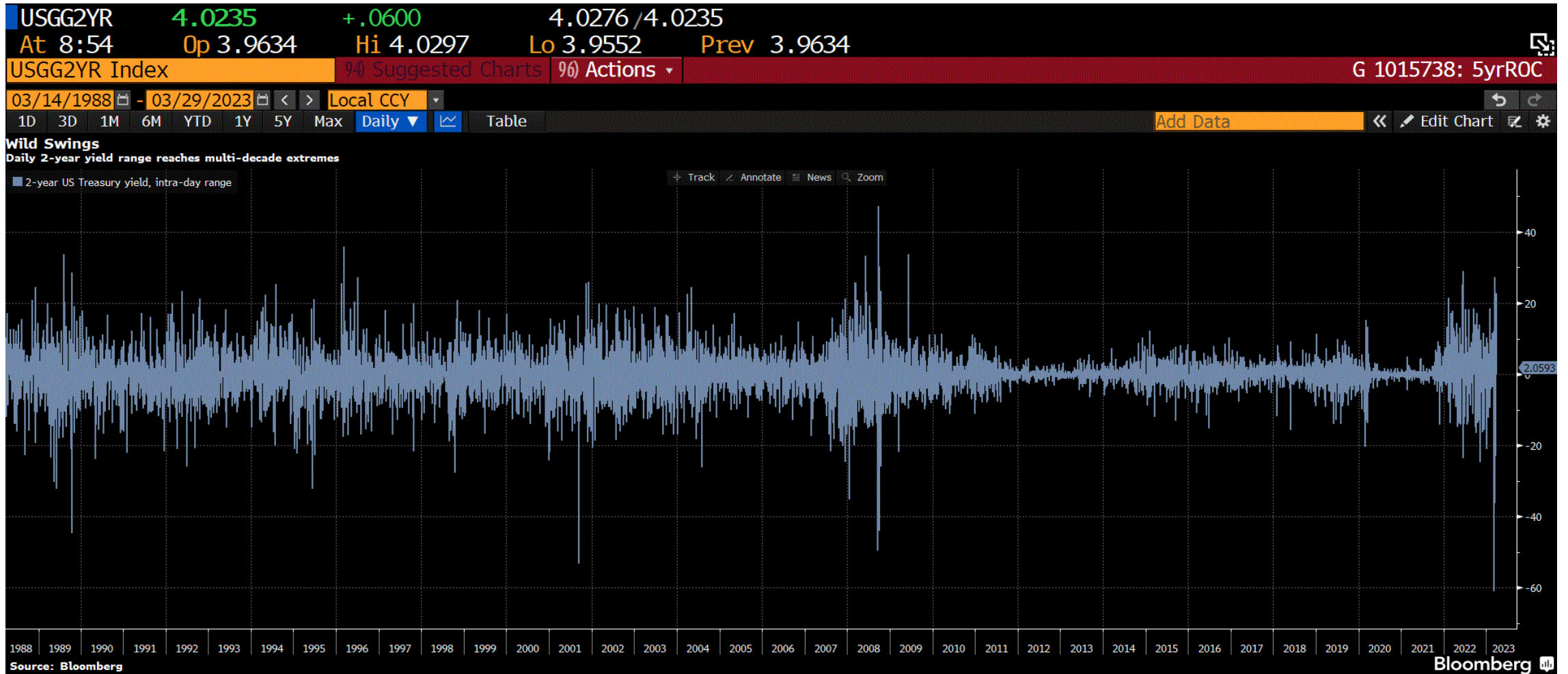
Market Pricing of Fed Terminal Rate versus Current Fed Funds Target Rate Upper Bound



MOVE Index: Yield Volatility hits highest since 2008 Financial Crisis



Daily Two-Year Yield Range reaches Multi-Decade Extremes



Buy the Two Year or Stay in Georgia Fund I

- December 31, 2018
 - Two-Year Treasury: 2.49%
- Assumptions
 - \$100 million investment
 - Does not include reinvestment of income
- Income Differential is \$2,227,918 over two years if you bought the two-year treasury

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Oct-19	1.89%	160,521	
Nov-19	1.69%	138,904	
Dec-19	1.62%	137,589	\$ 2,202,822
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Sep-20	0.11%	9,041	
Oct-20	0.10%	8,493	
Nov-20	0.07%	5,753	
Dec-20	0.06%	5,096	\$ 549,260

Two-Year Treasury	Income
Year 1 income	\$2,490,000
Year 2 Income	2,490,000
Total for 2 Years	\$4,980,000

Sources: ost.georgia.gov as of 1.18.2023, Bloomberg

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Please refer to the Disclosures and Investment Risks slides for additional information

Appendix

Investment Risks

Interest Rate Risk: the impact of changes in interest increase/decrease the market value of a bond

- Related to duration; market value change is inversely related to interest rate movement

Yield Curve Risk: portfolios have different exposures to how the yield curves shifts

- Any measure of interest rate risk that assumes that the interest rates changes by an equal number of basis points for all maturities is only an approximation

Reinvestment Risk: : the risk that proceeds available for reinvestment must be reinvested at a lower interest rate than the instrument that generated the proceeds

Liquidity Risk: : the risk that the investor will have to sell a bond below its true value where the true value is indicated by a recent transaction

- Primary measure of liquidity is the size of the spread between the bid price (price at which a dealer is willing to buy a security) and the ask price (the price at which a dealer is willing to sell a security)
- The wide the bid-ask spread, the greater the liquidity risk

With a weighted-average maturity (WAM) less than 60 days, a rated LGIP or fund similar to Georgia Fund I invest in short-term securities (typically less than 397 days stated final maturity). Monthly rate is a variable rate and closely tied to the Fed Funds target. Interest rate paid out to participants will increase in a rising rate environment and fall in a declining interest rate environment