

Treasury Strategies' Quarterly Corporate Cash Briefing™ for 4Q 2016

October 13, 2016

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Agenda



Corporate Cash Levels

Corporate and Tax-Exempt Money Fund Update

Panelist Discussion

- Money Market Fund Reform
- The U.S. Elections and Regulatory Uncertainty
- U.S. and Global Rates
- An Update on IRS 385 Reform





Corporate Cash Levels



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Corporate Cash Levels



US Corporate Cash



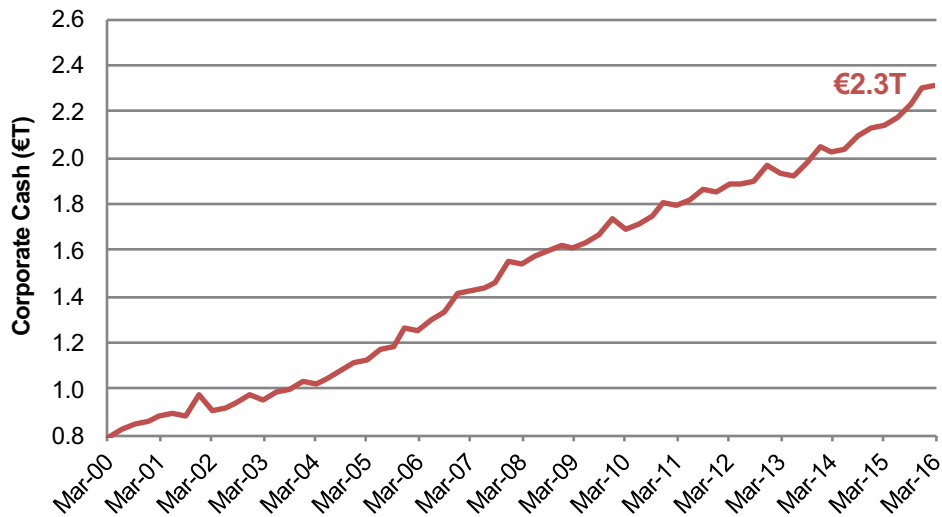
Source: Federal Reserve, Treasury Strategies

UK Corporate Cash



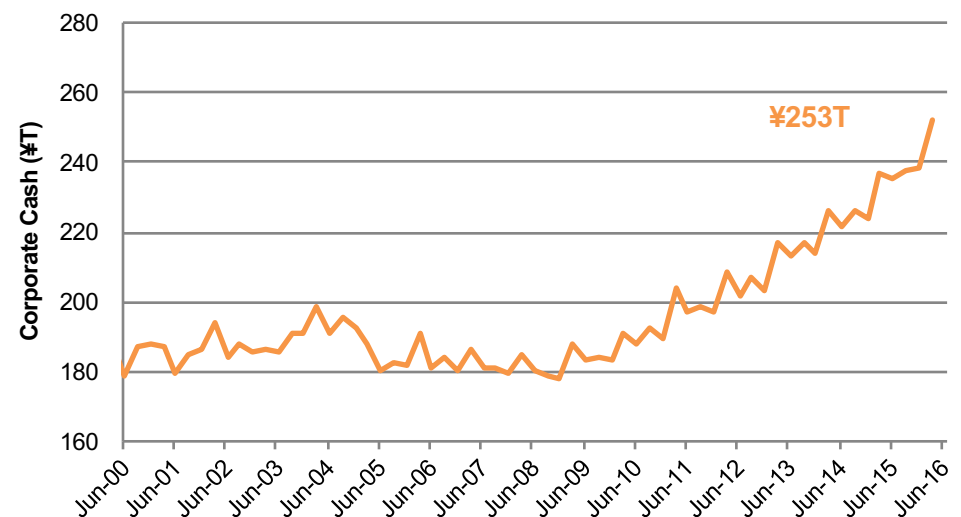
Source: UK Office for National Statistics, Treasury Strategies

Eurozone Corporate Cash



Source: European Central Bank, Treasury Strategies

Japan Corporate Cash

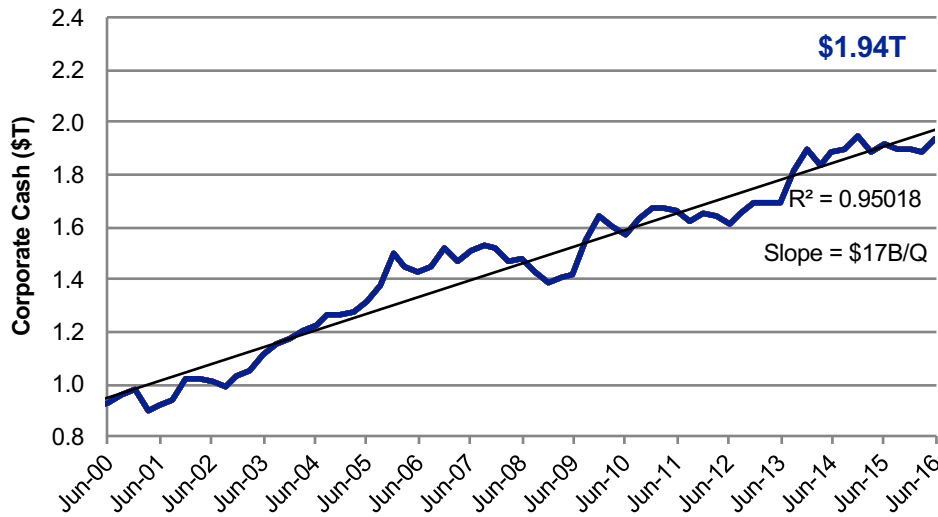


Source: Bank of Japan, Treasury Strategies

Corporate Cash Levels



US Corporate Cash



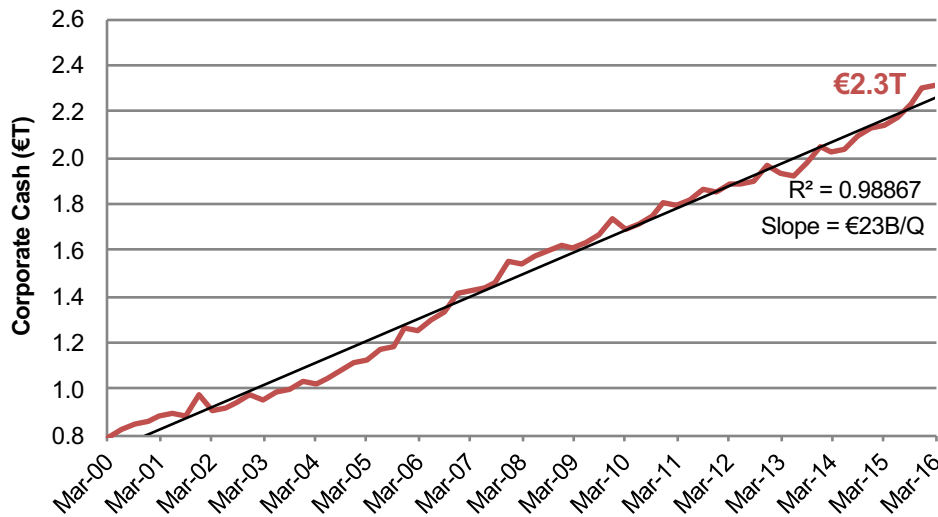
Source: Federal Reserve, Treasury Strategies

UK Corporate Cash



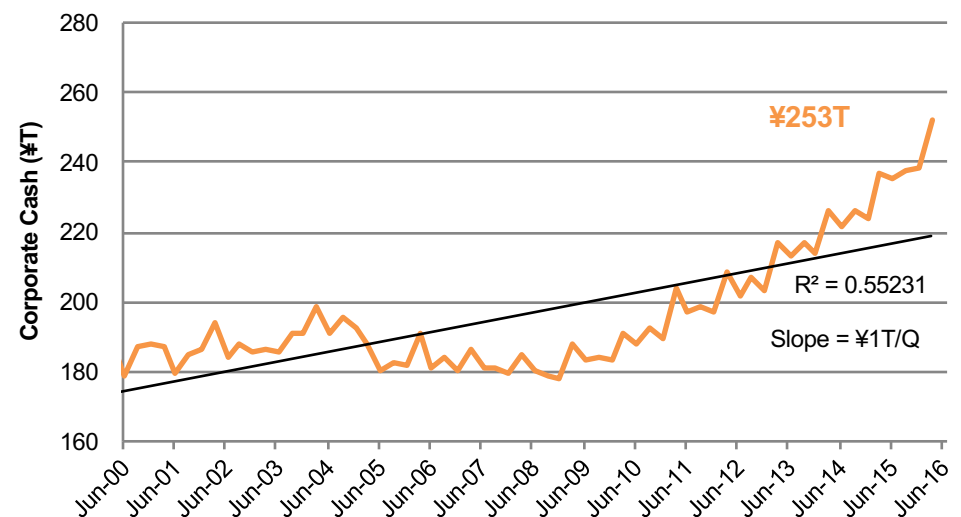
Source: UK Office for National Statistics, Treasury Strategies

Eurozone Corporate Cash



Source: European Central Bank, Treasury Strategies

Japan Corporate Cash



Source: Bank of Japan, Treasury Strategies

Corporate Cash as % GDP by Region



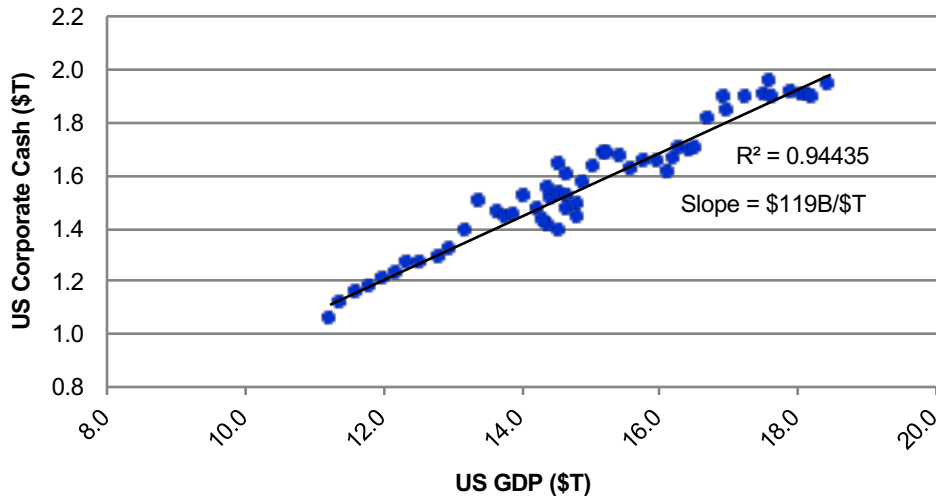
Country/Region	December 2000	June 2016
United States	9%	11%
Eurozone	15%	22%
United Kingdom	24%	34%
Japan	37%	50%

Source: Treasury Strategies' estimate

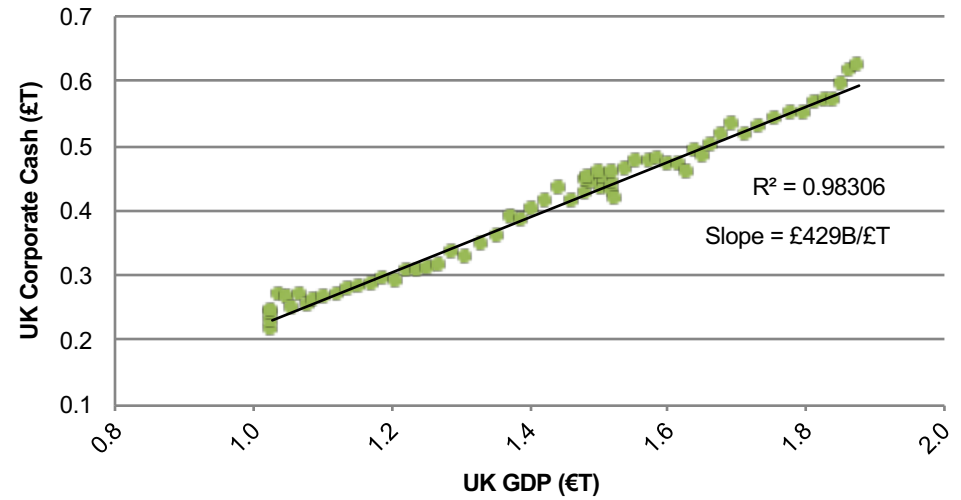
Corporate Cash Relative to Nominal GDP



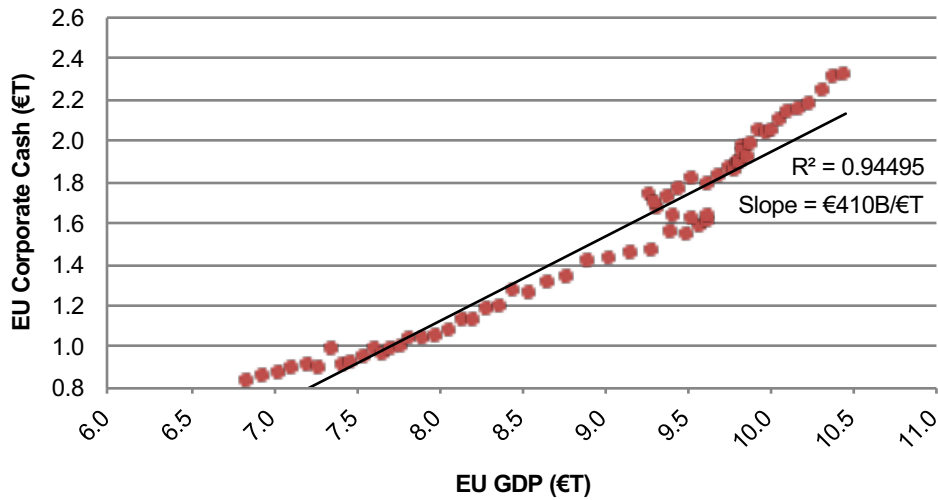
US Corporate Cash relative to US Nominal GDP



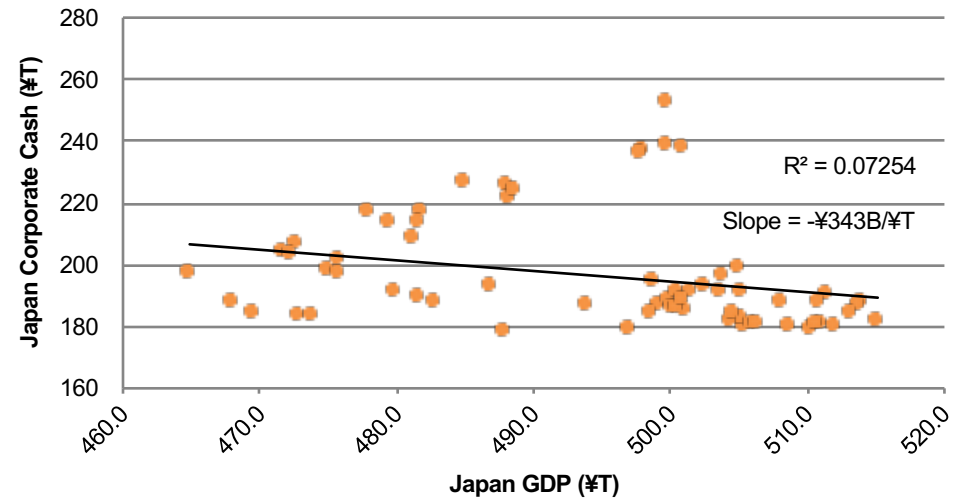
UK Corporate Cash relative to UK Nominal GDP



EU Corporate Cash relative to EU Nominal GDP



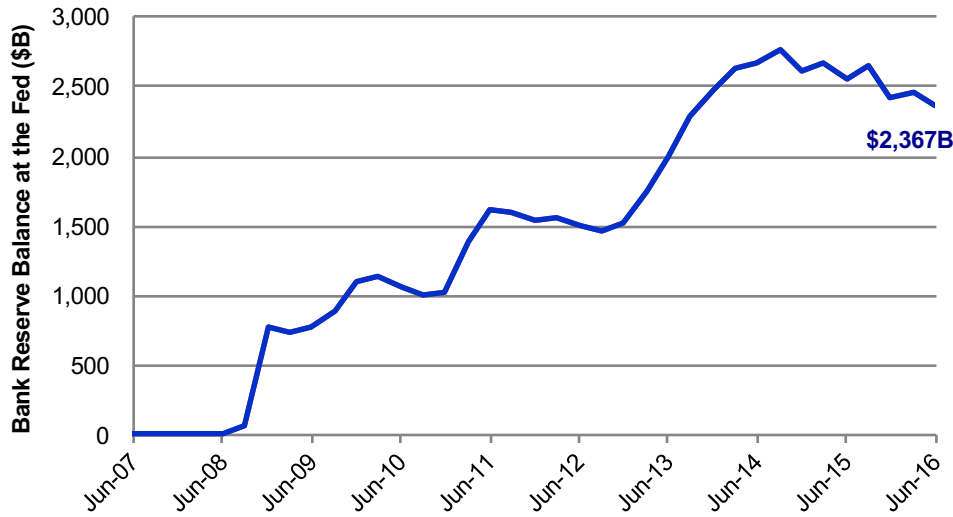
Japan Corporate Cash relative to Japan Nominal GDP



Reserve Balances

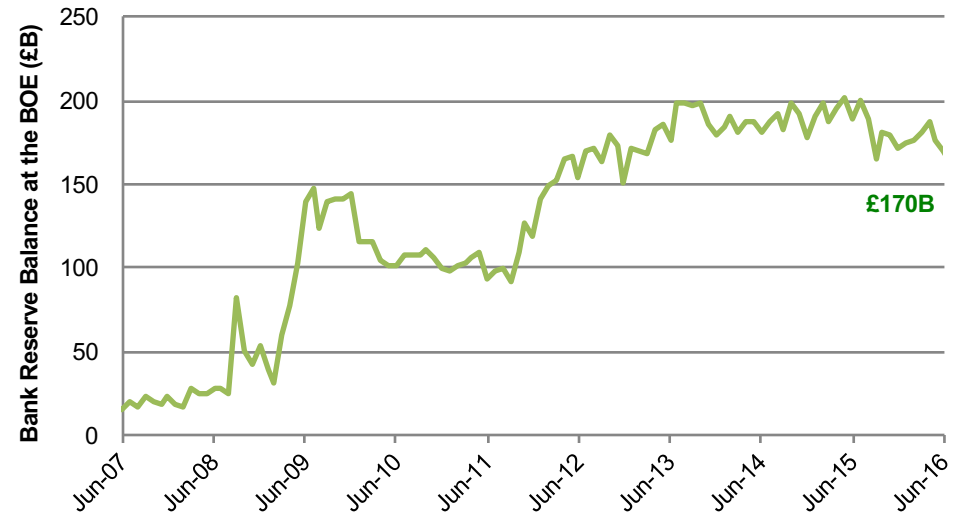


Bank Reserve Balances at the US Federal Reserve



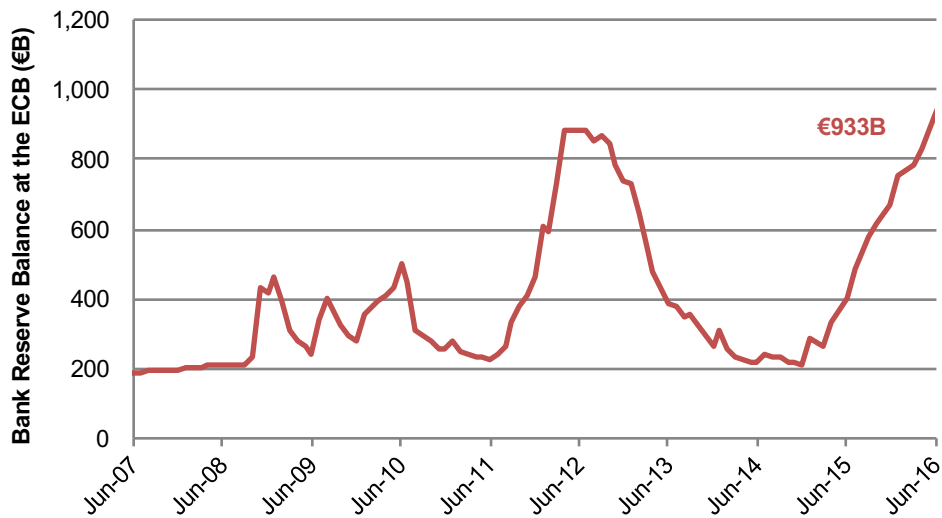
Source: Federal Reserve, Treasury Strategies

Bank Reserve Balances at the BOE



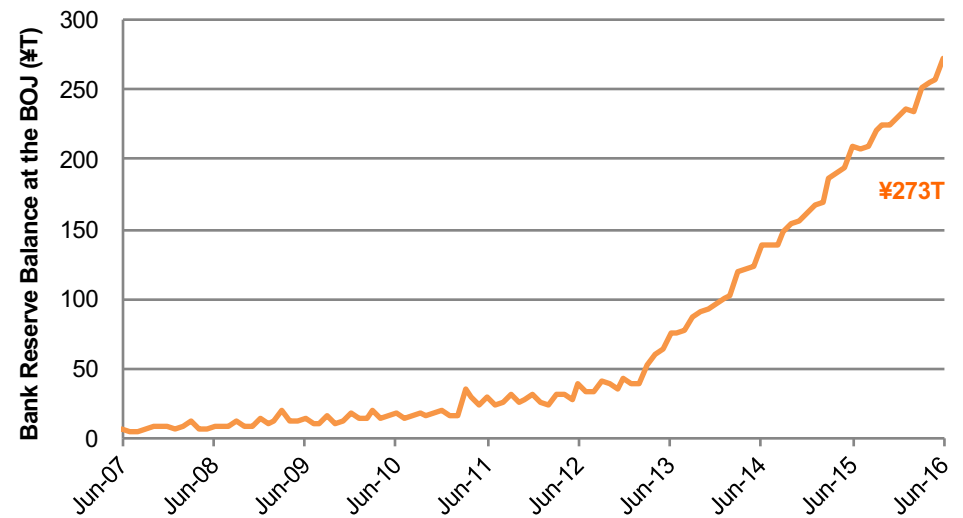
Source: Bank of England, Treasury Strategies

Bank Reserve Balances at the ECB



Source: European Central Bank, Treasury Strategies

Bank Reserve Balances at the BOJ

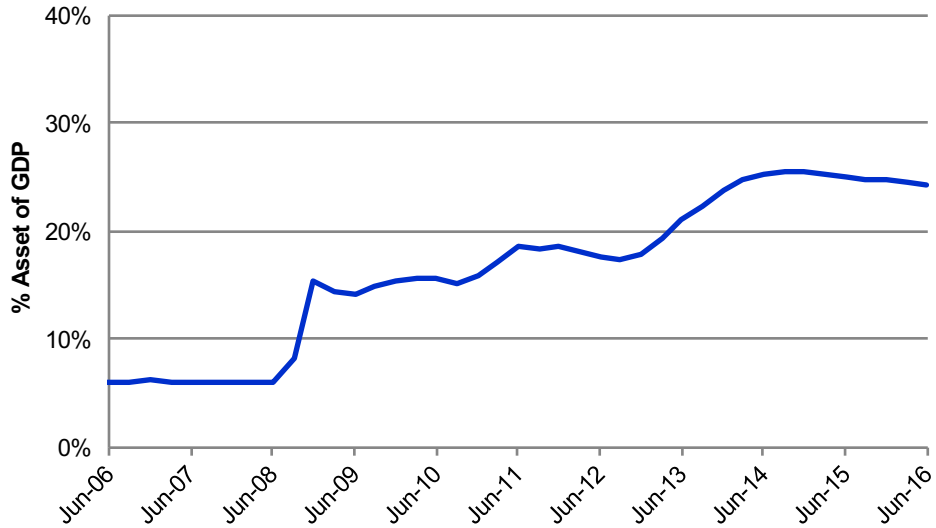


Source: Bank of Japan, Treasury Strategies

Central Bank Assets as % GDP by Region

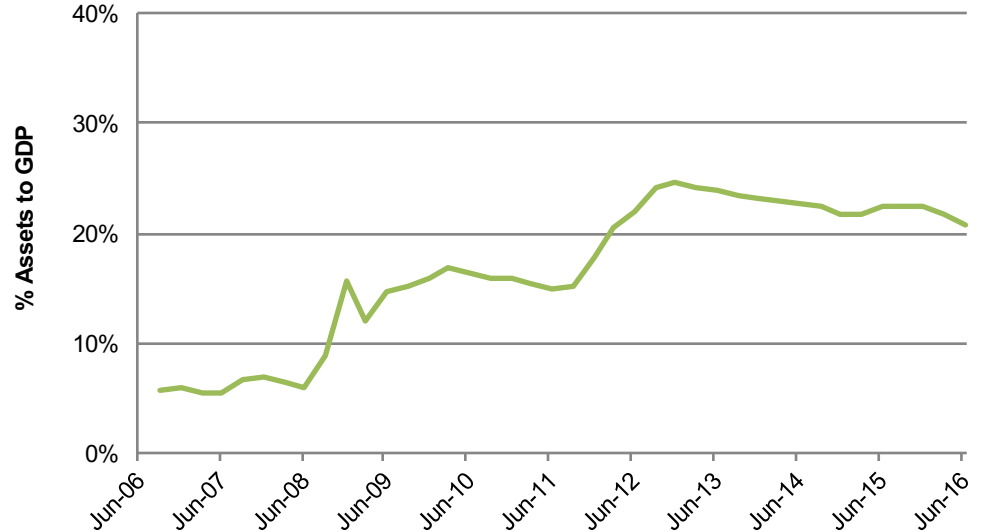


US Federal Reserve Total Asset as % of GDP



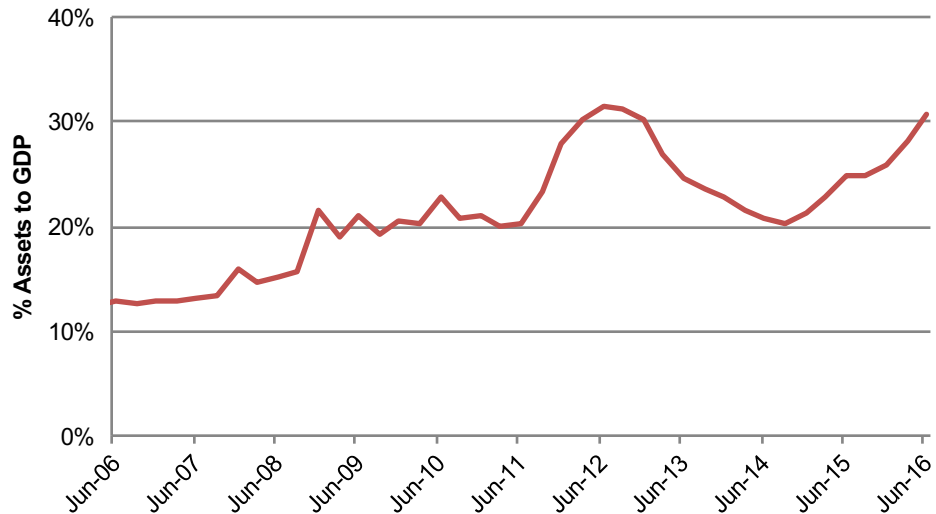
Source: U.S. Bureau of Economic Analysis, St. Louis Federal Reserve, Treasury Strategies

BOE - Total Assets as % of GDP



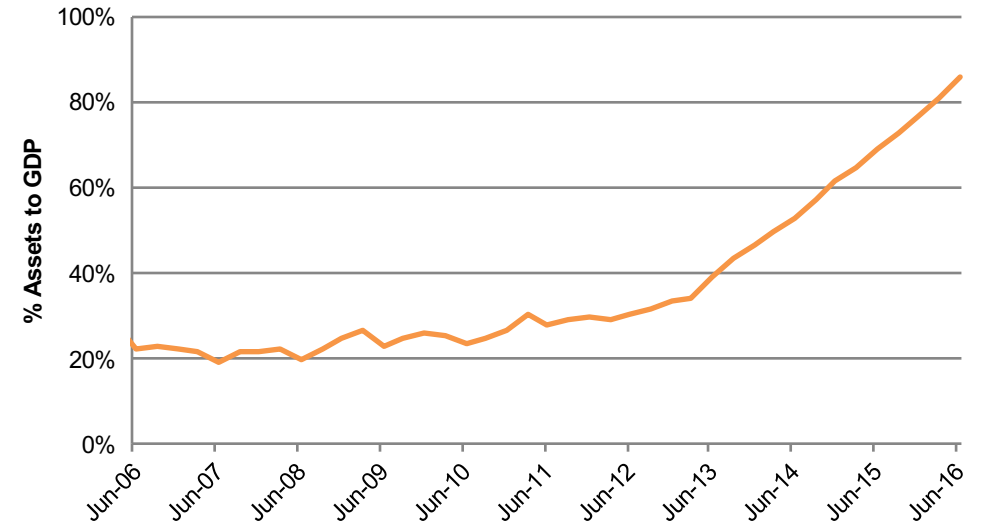
Source: UK Office of National Statistics, Bank of England, Treasury Strategies

European Central Bank - Total Asset as % of GDP



Source: St. Louis Federal Reserve, Treasury Strategies

Bank of Japan - Total Assets as % of GDP



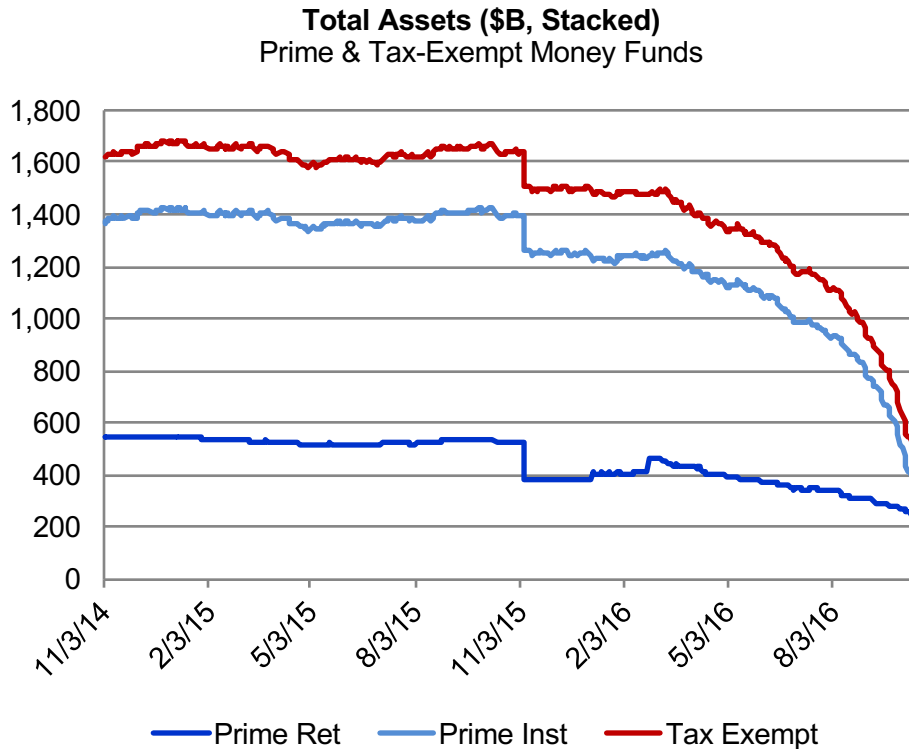
Source: Bank of Japan, St. Louis Federal Reserve, Treasury Strategies

Corporate and Tax-Exempt Money Fund Update



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Countdown to New US MMF Regulations: T-minus 2 Days



Source: Treasury Strategies, Crane Data

- Over one trillion dollars has fled Prime and Tax-Exempt money funds in anticipation of new regulations taking effect in October 14, 2016. Through October 11, **\$1.15 trillion has exited** and the pace is accelerating.
- With almost all of the outflow leaving the private sector and moving into Treasury and Government funds, borrowers are faced with higher rates and fewer borrowing options. LIBOR has spiked, as have rates on short-term municipal debt.
- Prime funds, a key source of funding for corporations and banks, have seen a **72% drop from \$1.41 trillion in Jan. 2015 to \$0.40 trillion on Oct. 11, 2016.**
- Tax-exempt funds, a key source of funding for municipalities, universities and hospitals, have experienced a **50% decline since the beginning of 2015.**

Key Money Fund Statistics

Assets (\$B)				
Fund Type	Level 10/11	Change: 1 day	Change: 1 week	Change since 1/1/16
Prime Inst.	153	-8	-53	-717
Prime Retail	252	-1	-16	-133
Tax-exempt	127	0	-2	-125
Government	1,426	-3	53	750
Treasury	611	2	7	109

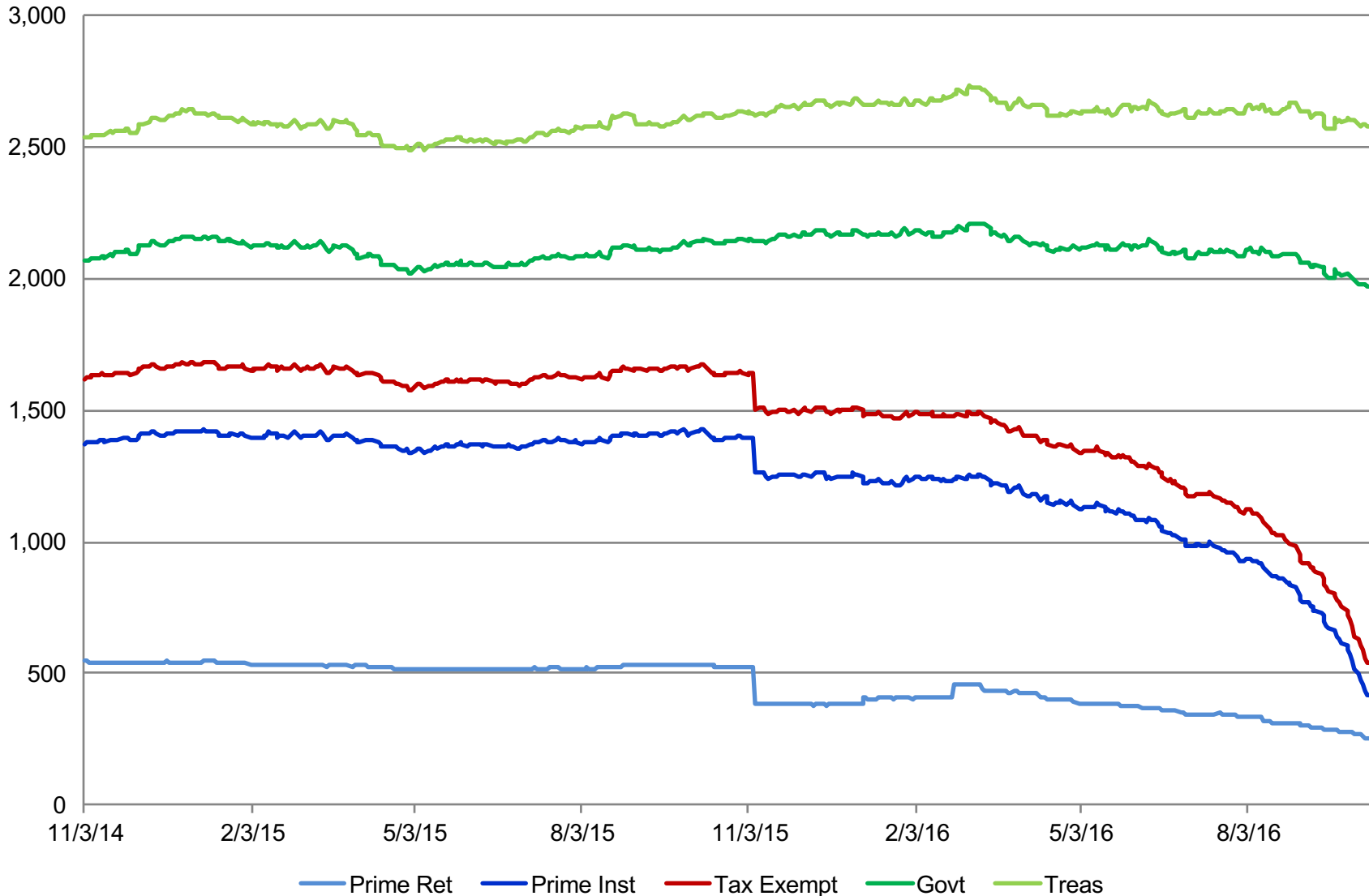
Source: Treasury Strategies, Crane Data

Key Rates (%)		
Index	10/11	1/1/16
30-day LIBOR	0.53	0.42
90-day LIBOR	.88	0.61
1-year LIBOR	1.59	1.15
SIFMA	0.87	0.01

Source: Treasury Strategies, Federal Reserve

Assets Most Impacted by the New Regulations Are in a Free Fall

Total Assets (\$B, Stacked)
All Money Fund Types



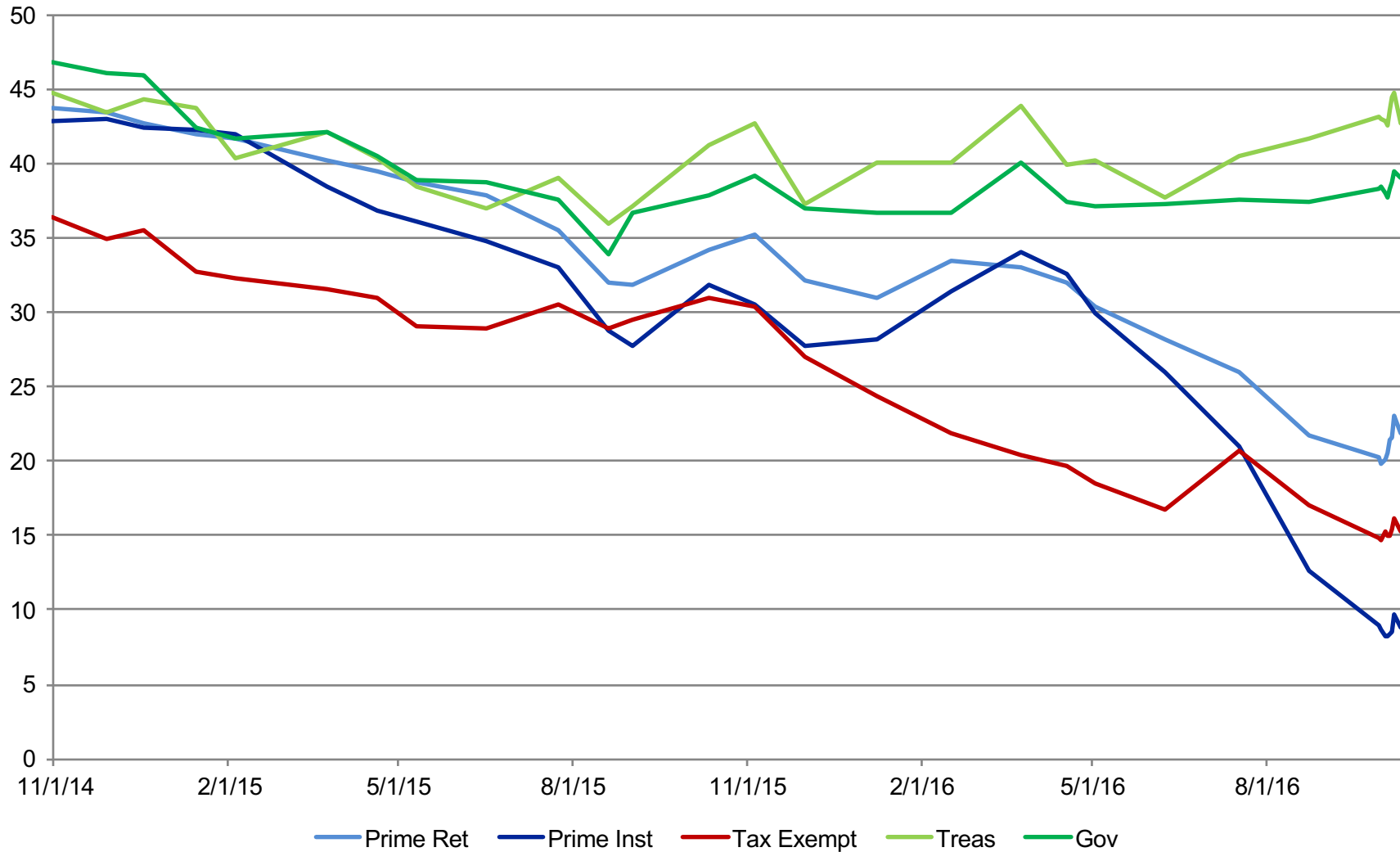
Source: Treasury Strategies, Crane Data



Prime and Tax-Exempt Portfolios Are Shortening as Implementation Nears



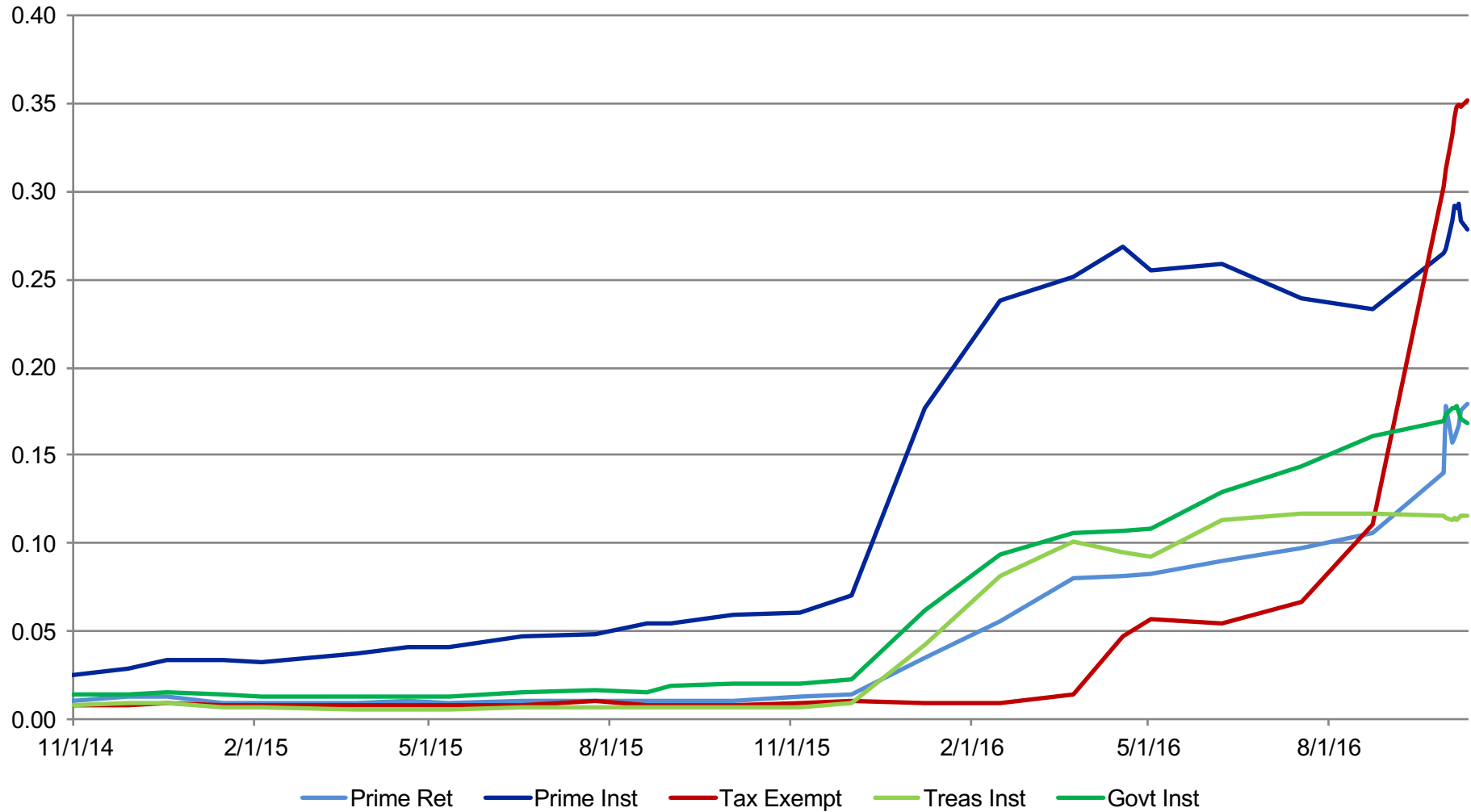
Weighted Average Maturity (Days)
All Funds



Source: Treasury Strategies, Crane Data

Short-Term MMF Rates to Investors Have Increased

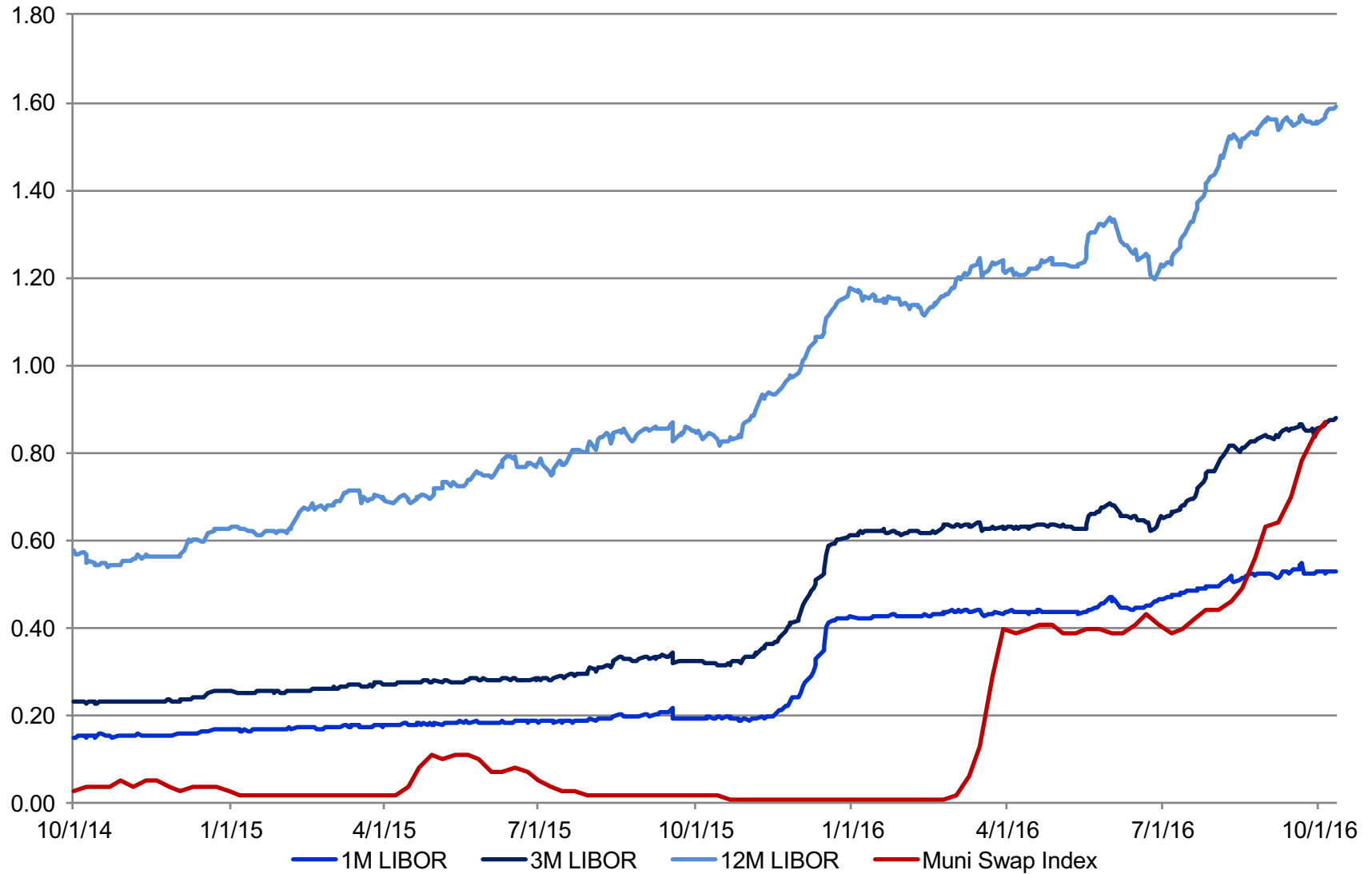
Weighted Average 7-Day Yield (%)
Select Fund Types



Source: Treasury Strategies, Crane Data

Short-Term Money Markets Are More Volatile Due to MMF Asset Flows

Short-Term Borrowing Cost Indices



Sources: Treasury Strategies, Bloomberg, Federal Reserve Board

Panelist Discussion



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Meet Our Speakers



Tony Carfang
Partner
312.628.6921
tony_carfang@treasurystrategies.com



Debbie Cunningham
Chief Investment Officer
412.288.8481
dcunninghaml@federatedinv.com



Kevin Ruiz
Principal
312.320.0398
kevin_ruiz@treasurystrategies.com



Steve Baseby
Associate Policy and Technical Director
+44 (0) 78 874 623
sbaseby@treasurers.org



Greg Fayvilevich
Senior Director
212.908.9151
gregory.fayvilevich@fitchratings.com

About Treasury Strategies



Treasury Strategies, A Division of Novantas, Inc., is the leading treasury consulting firm. Armed with decades of experience, we've developed solutions and delivered insights on leading practices, treasury operations, technology, and risk management for hundreds of companies around the globe.

We serve corporate treasurers, their financial services providers and technology providers for the complete 360° view of of treasury.



Solutions

- Global Cash and Liquidity Management
- Cash Forecasting
- Financial Risk Management
- Treasury Organization
- Payments Strategy
- Leading Practices Review and Benchmarking
- RFP Support for Banking Services
- Technology Business Requirements and Gap Analysis
- Technology Optimization and Updates
- Technology Selection
- Technology Implementation and Connectivity
- Treasury Change Management and Resource Support

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About the ACT

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What We Do

ACT supports the growth and professional development of treasurers and finance professionals. We are an active global network of treasury, risk and finance professionals with members and students in 98 countries.

- We promote treasury as a discipline, as a profession and as a career.
- We provide informed and unbiased technical advice.
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- We represent the real economy and influence relevant regulation and market practice.



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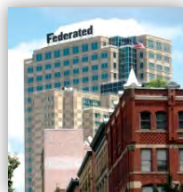


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About Federated Investors, Inc.



Delivering investment solutions since 1955

Founded: 1955

Headquarters: Pittsburgh

Global Operations: New York, Rochester, Boston, Houston, Dublin, Frankfurt, London and Tokyo

AUM: Approximately \$355 billion

Ownership:

- Publicly traded, privately held (NYSE: FII)
- 20% employee ownership

Revenue Distribution

Equity	46%
Liquidity	32%
Fixed-income	22%

Representative Clients

- Corporate/Public Defined Benefit
- Defined Contribution
- Endowment/Foundation
- Taft-Hartley
- Insurance
- Sub-Advisory
- Local Government Investment Pools (LGIP)
- Financial Intermediaries

Equity Management

- Independent investment teams each focused on a specific style or approach with commitment to proprietary research
- Portfolio managers average 23 years of experience, nearly 11 with Federated
- Strategies are a result of both carefully cultivated homegrown initiatives as well as key strategic acquisitions
 - Value (Clover)
 - Quantitative (MDT)
 - Balanced/Macro
 - International Equity
 - Growth/Income
 - Alternatives (Prudent Bear)
 - Dividend Oriented
 - Growth (Kaufmann)
 - Managed Risk

Fixed-Income Management

- Experienced, specialized teams with strength across the yield curve
- Portfolio managers average 25 years of experience, nearly 18 with Federated
- Modular process is portable across fixed-income styles and lends itself to portfolio customization
 - Multi-Sector: Active Cash, Short, Intermediate
 - Sector Specific: Corporate, High-Yield, Emerging Markets, Trade Finance, Municipals

Liquidity Management

- Pioneer in liquidity management for more than 40 years and one of the largest institutional money market fund managers in the industry*
- 34 liquidity management professionals with 19 years working together at Federated
- Have never bought a security out of or infused capital into a money market fund to maintain a stable \$1.00 NAV
 - Prime
 - Tax-Free
 - Government
 - Non-U.S Domiciled

All information is as of 3/31/15 unless stated otherwise.

*Source: iMoneyNet, Inc. February 28, 2015



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