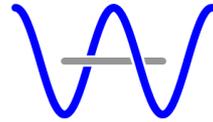


Win Analytics LLC



**The Treasury and the Fed:
a Symbiotic Relationship,
and What it Means for Interest Rates**

A Presentation to the
Sixth Annual Risk Conference
sponsored by

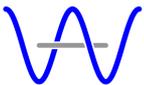
**Federal Reserve Bank of Chicago
DePaul University, Driehaus College of Business**

by Winthrop T. Smith

April 9, 2013

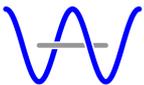
Win Smith and Win Analytics LLC

- **Win Smith**
 - President and Founder of **Win Analytics LLC**
 - Former CFO of \$7B Education Finance Company
 - Oxford MSc in Mathematical Finance
- **Win Analytics LLC**
 - Financial Advice
 - Financial Research
 - Portfolio Valuation
 - Financial Modeling
 - Litigation Support
- **Websites**
 - www.winanalytics.com
 - Blog: [The Well-Tempered Spreadsheet](#)



Presentation Overview

- **The Treasury is not “Going Long”**
- **Don’t Underestimate the Fed**
- **Symbiosis in the Bond Market**
- **The Future of the Fed Portfolio**
- **Interest Rate Scenarios**



The Treasury is not “Going Long”

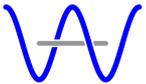
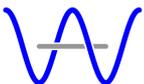
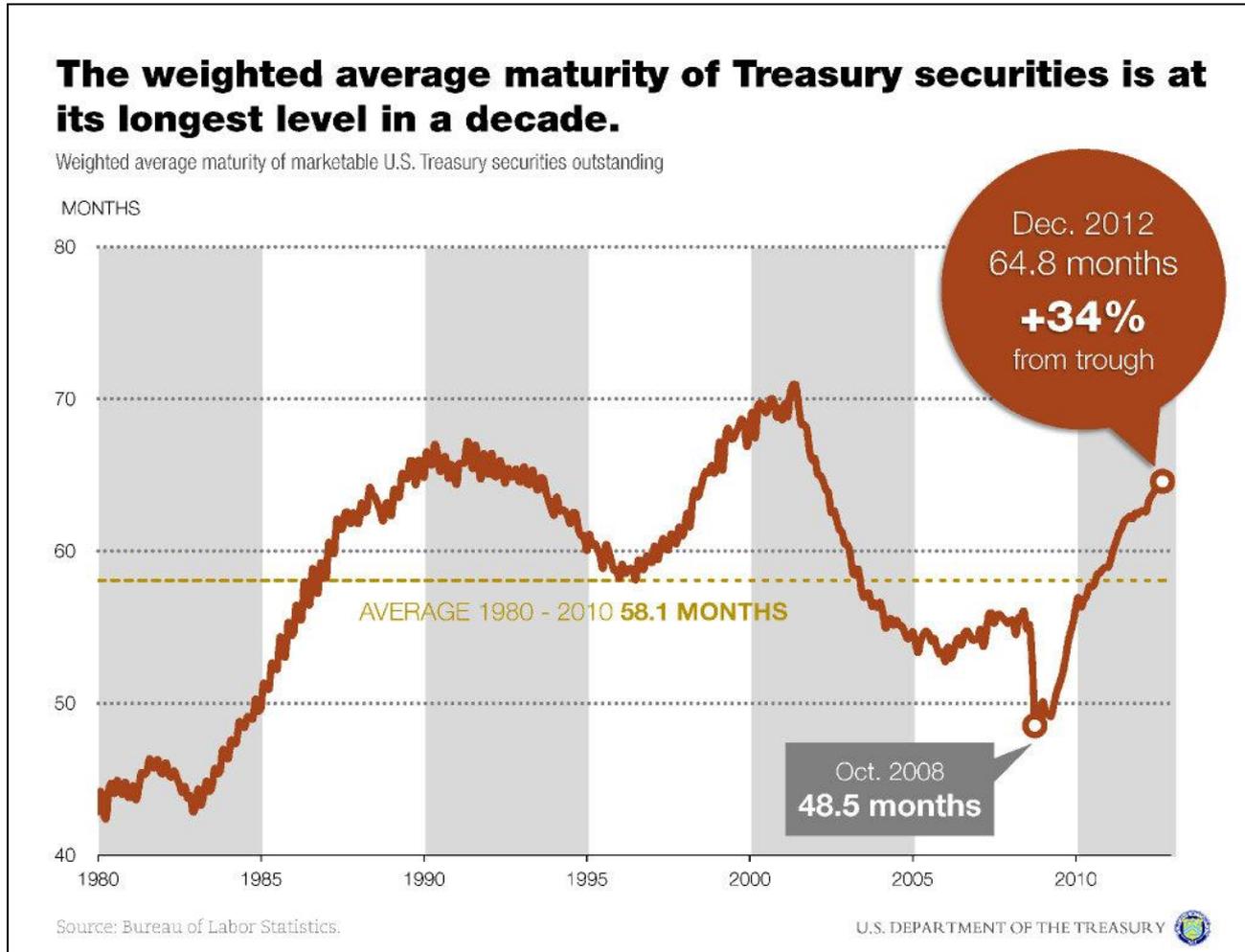
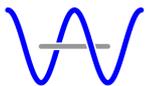
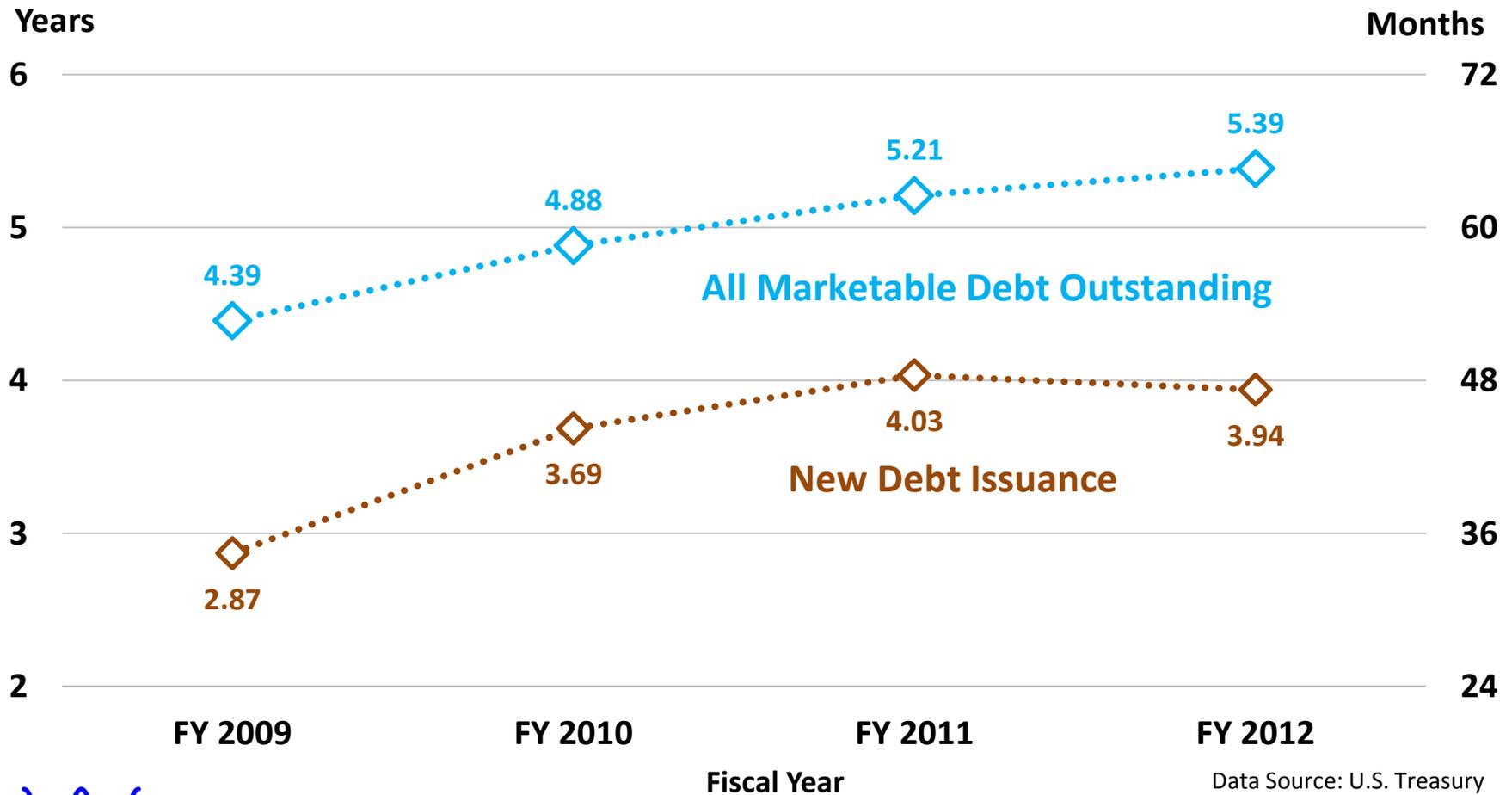


Chart from the U.S. Treasury

Tweeted February 6, 2013



Average Maturity of **Outstanding Debt** and **New Issuance** Fiscal Years 2009-2012



Data Source: U.S. Treasury

Marketable U.S. Treasury Securities Securities Issued in FY 2012, as of 9/30/12

Principal Issued
\$3T

\$2T

\$1T

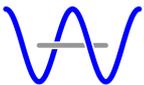
\$0T

■ FY 2012 (3.94 year Avg Maturity)

0-1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

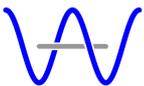
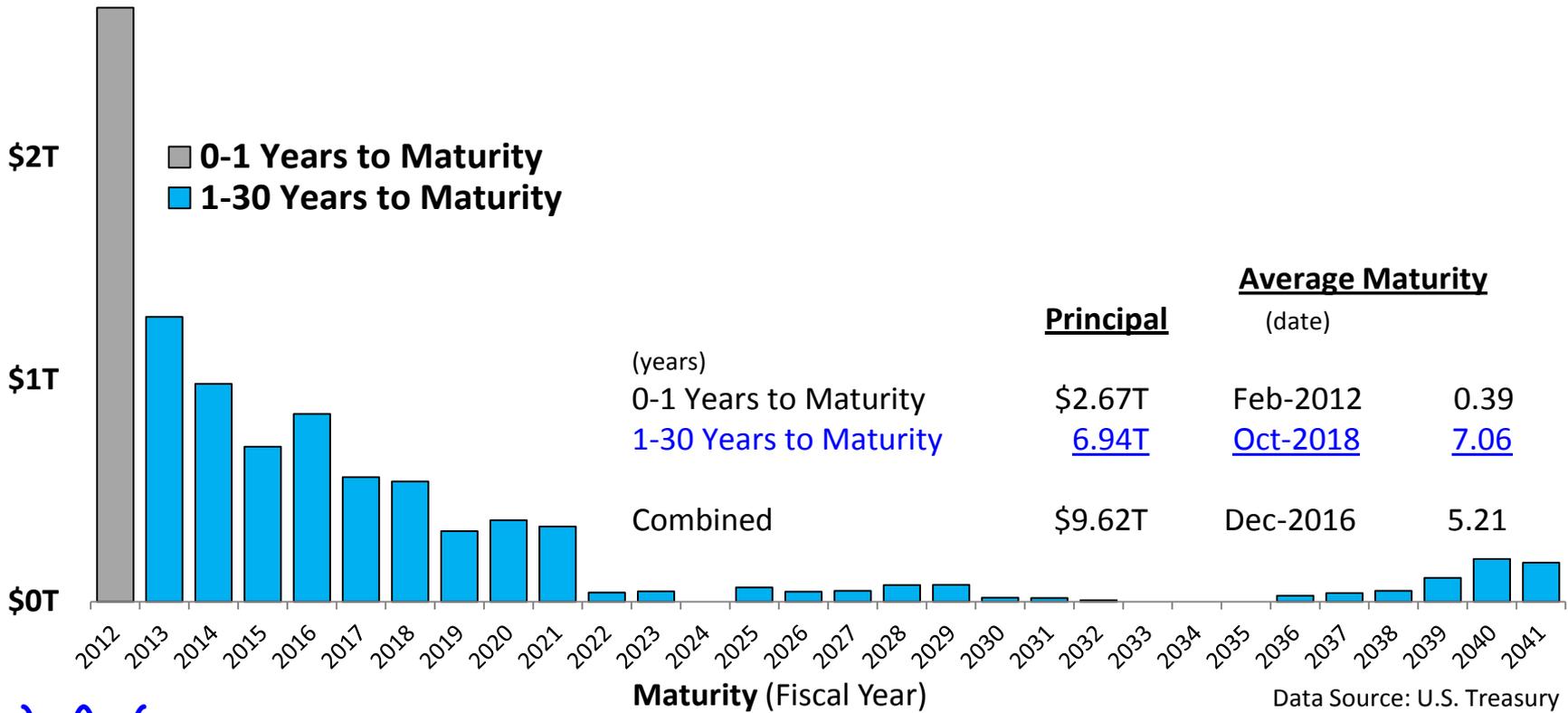
Years to Maturity

Data Source: U.S. Treasury



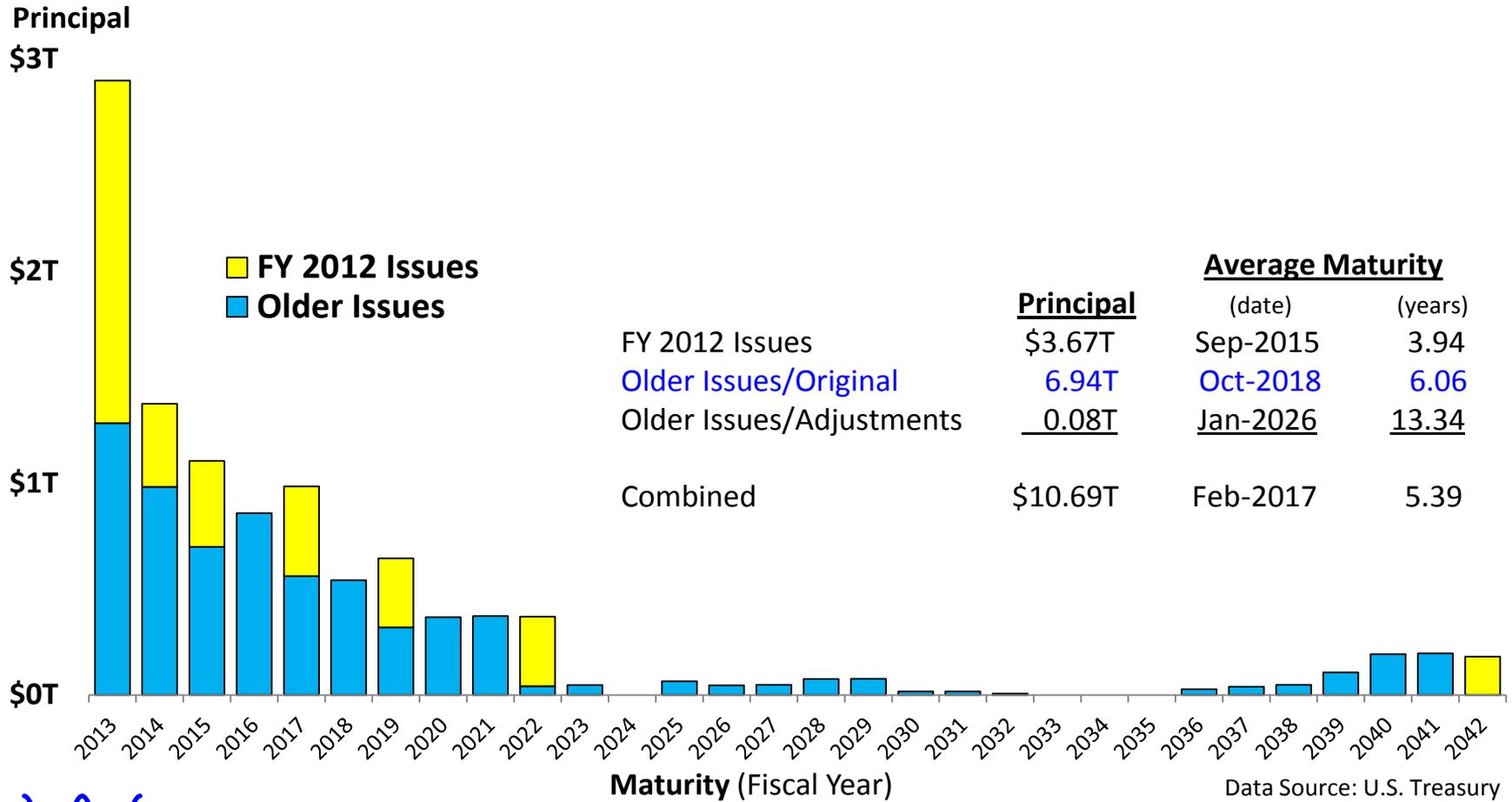
Marketable U.S. Treasury Securities Outstanding at 2011 Fiscal Year End (9/30/2011)

Principal
\$3T

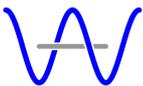


Data Source: U.S. Treasury

Marketable U.S. Treasury Securities Outstanding at 2012 Fiscal Year End (9/30/2012)



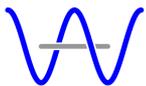
	<u>Principal</u>	<u>Average Maturity</u>	
		(date)	(years)
FY 2012 Issues	\$3.67T	Sep-2015	3.94
Older Issues/Original	6.94T	Oct-2018	6.06
Older Issues/Adjustments	0.08T	Jan-2026	13.34
Combined	\$10.69T	Feb-2017	5.39



Data Source: U.S. Treasury

Explaining Changes in Weighted Average Life

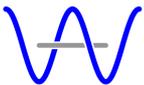
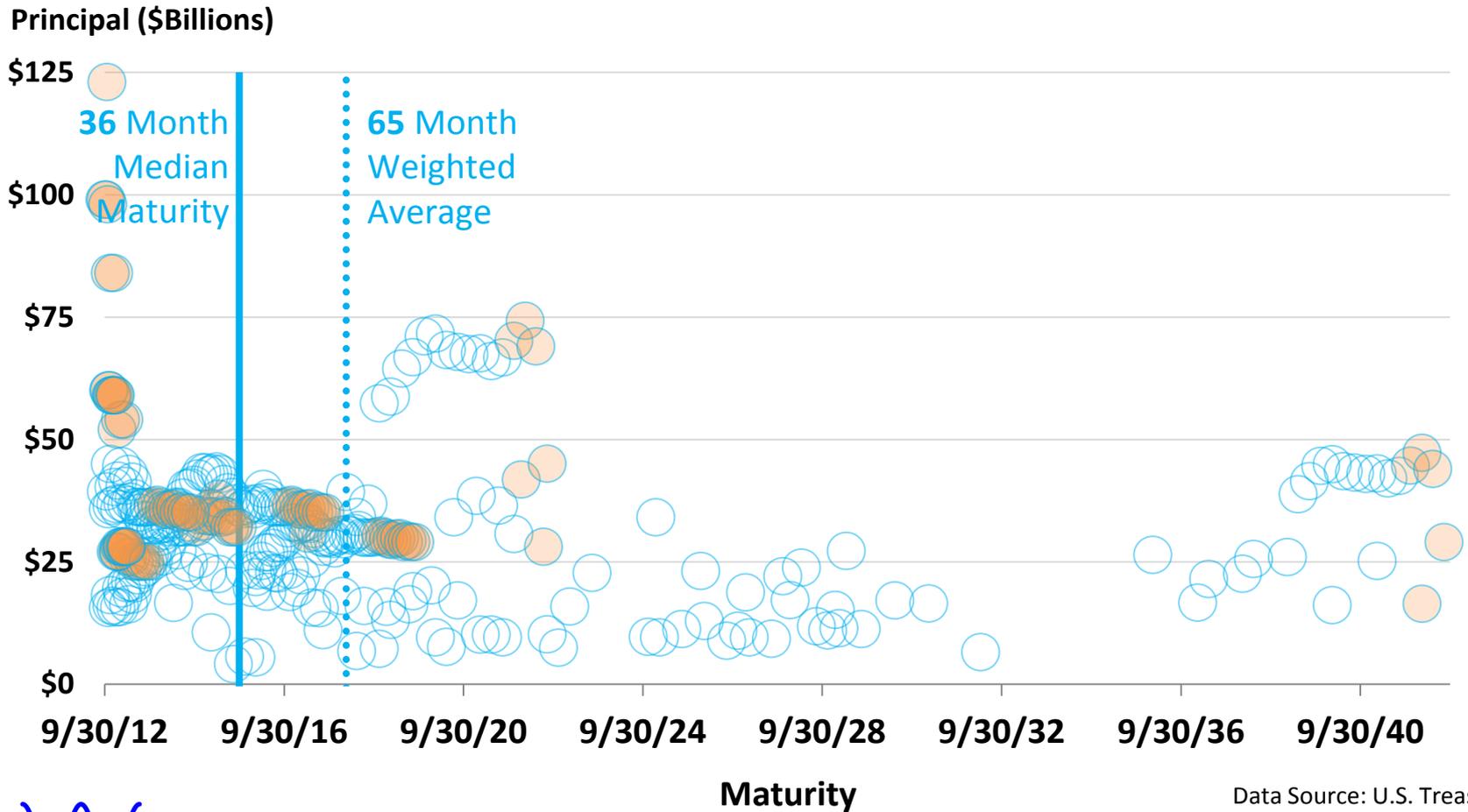
Group	FY 2011	FY 2012	Change
FY13-41, Issued by FY11	7.06	6.06	-1.00
FY12, Issued by FY11	-1.85		1.85
FY12 New Issues		-0.73	-0.73
FY12 Adjustments		0.06	0.06
Totals	5.21	5.39	0.18



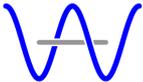
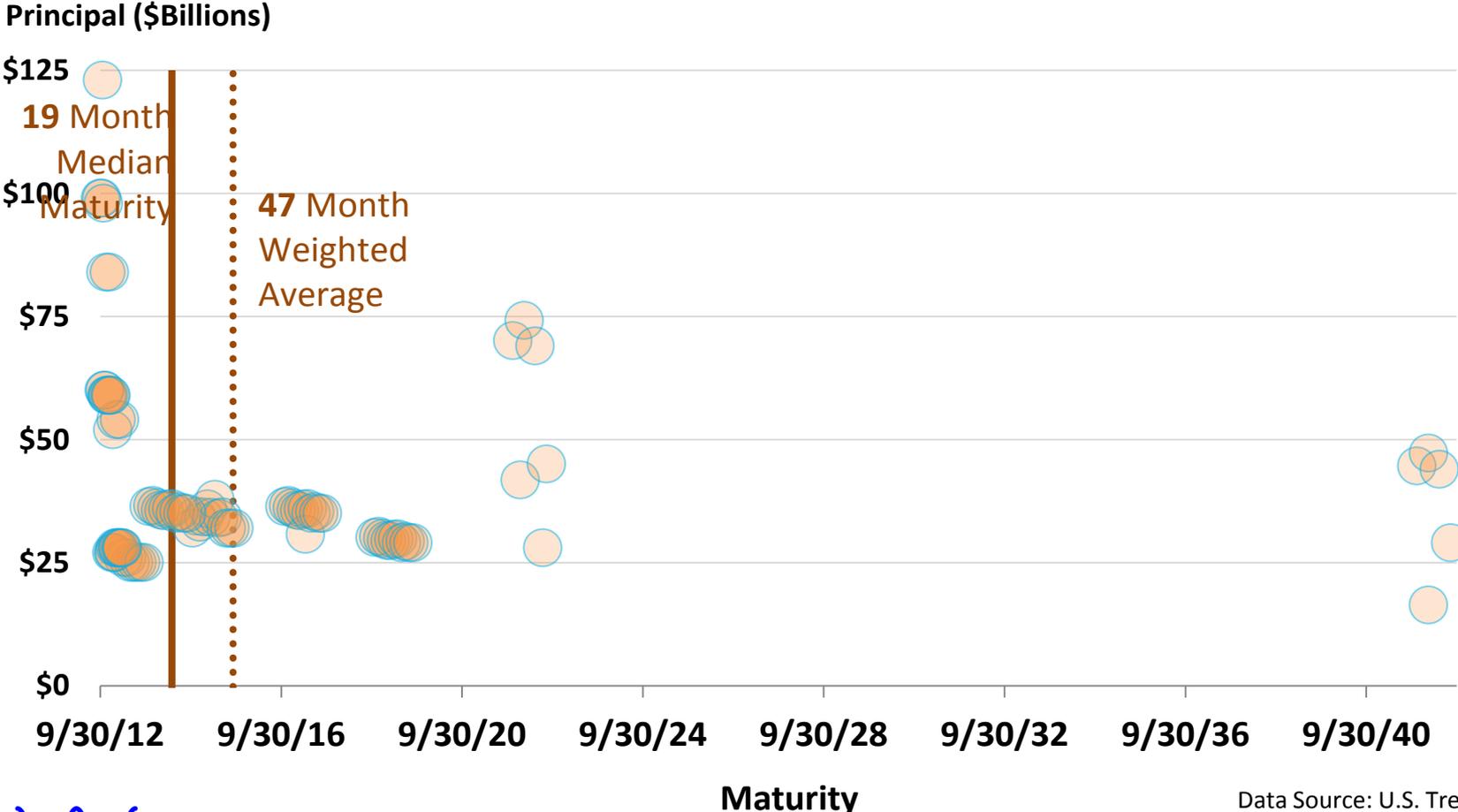
U.S. Treasury Marketable Securities

All Outstanding Securities

as of September 30, 2012

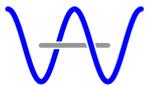


U.S. Treasury Marketable Securities Securities Issued in Fiscal Year 2012 as of September 30, 2012



Data Source: U.S. Treasury

Don't Underestimate the Fed

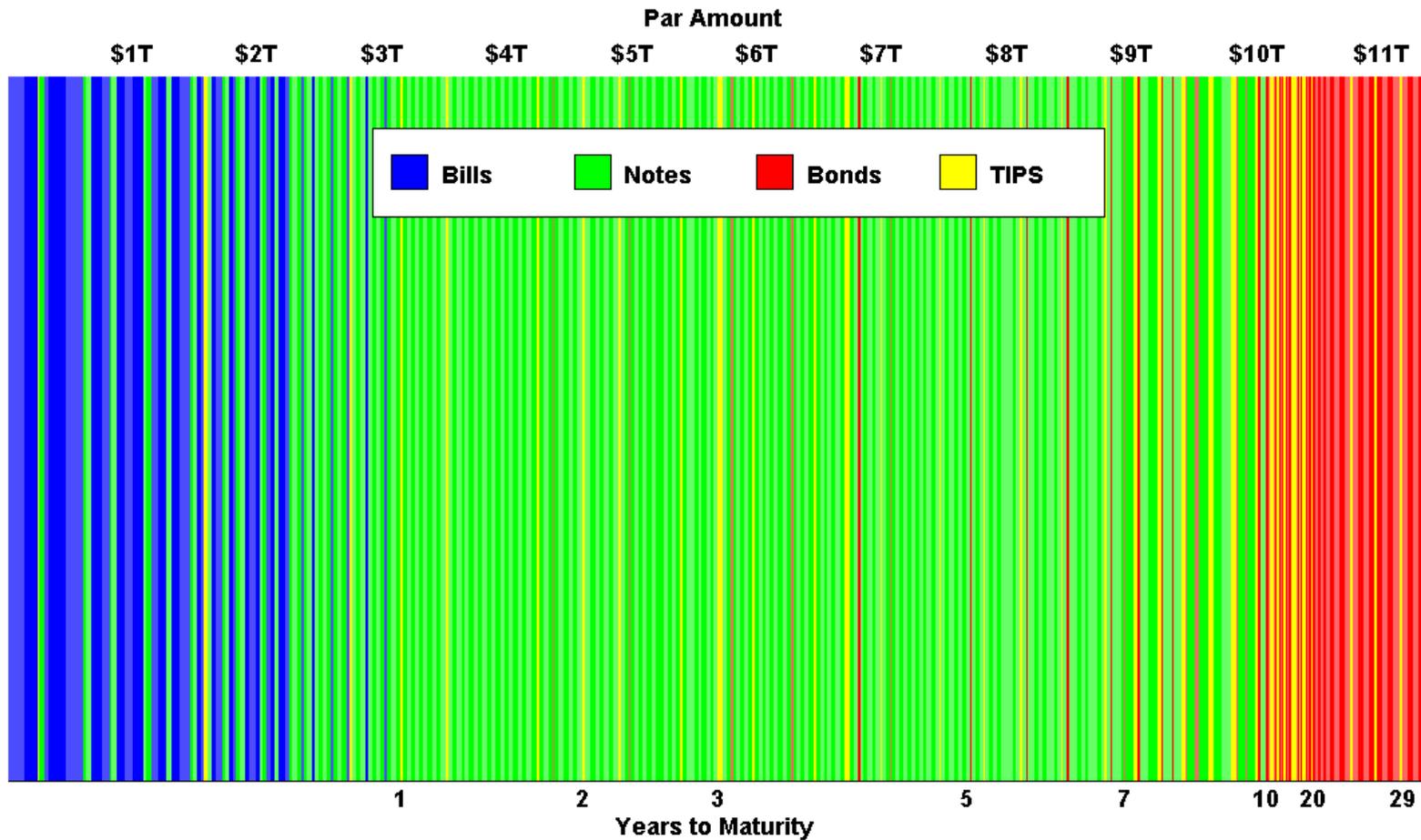


Fed Actions in the Treasury Market

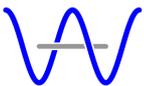
- Quantitative Easing and Operation Twist
- Reduce **Duration** Held by Private Investors:
By reducing the supply of duration in the market, this action should put downward pressure on longer-term interest rates relative to levels that would otherwise prevail.
- Fed measures impact in terms of “10-Year Equivalents”



“Spectrum” of Marketable Treasurys as of March 2013 by Par Amount



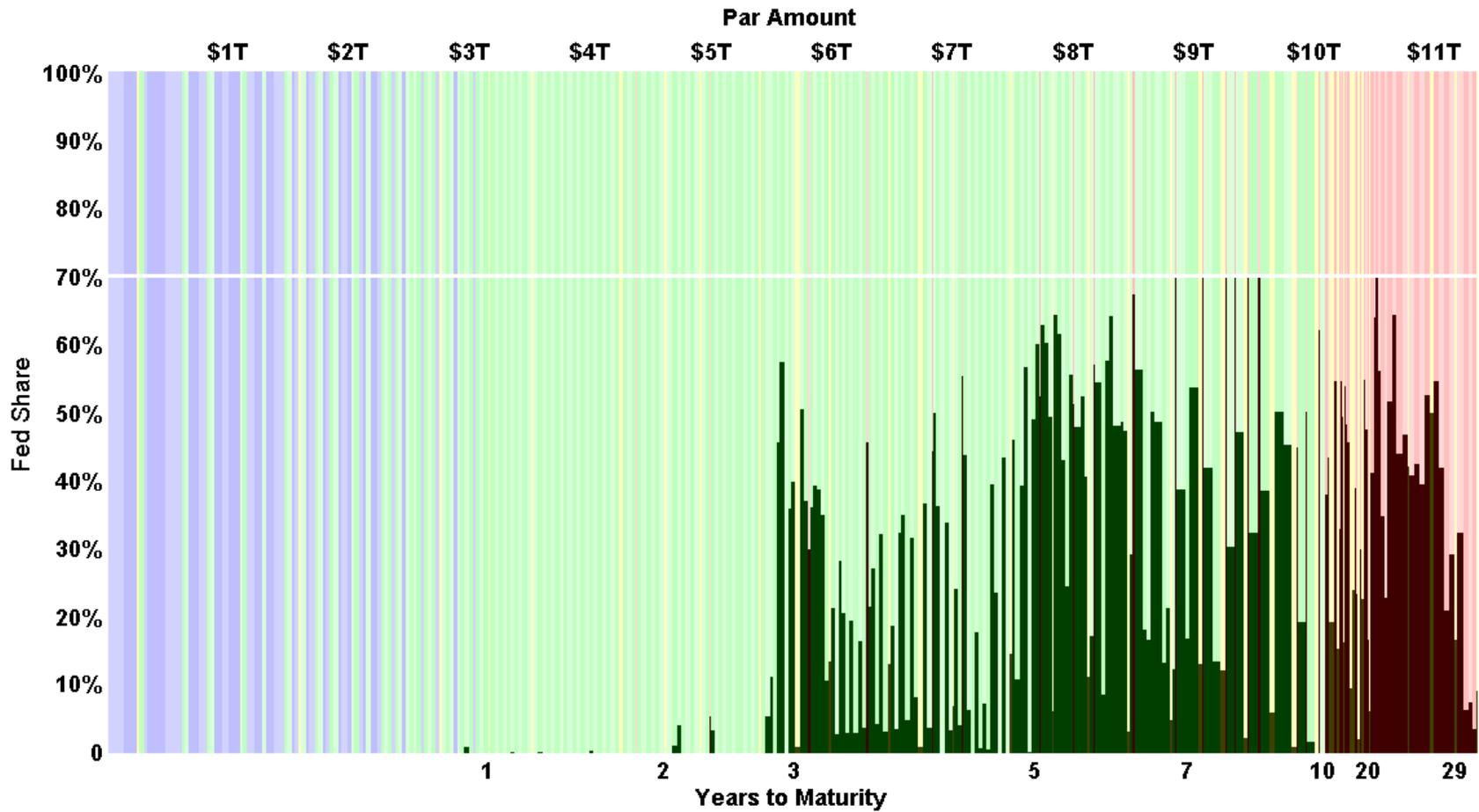
Data Source: U.S. Treasury



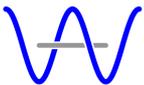
Marketable Treasurys as of March 2013

16% Fed Share

by Par Amount



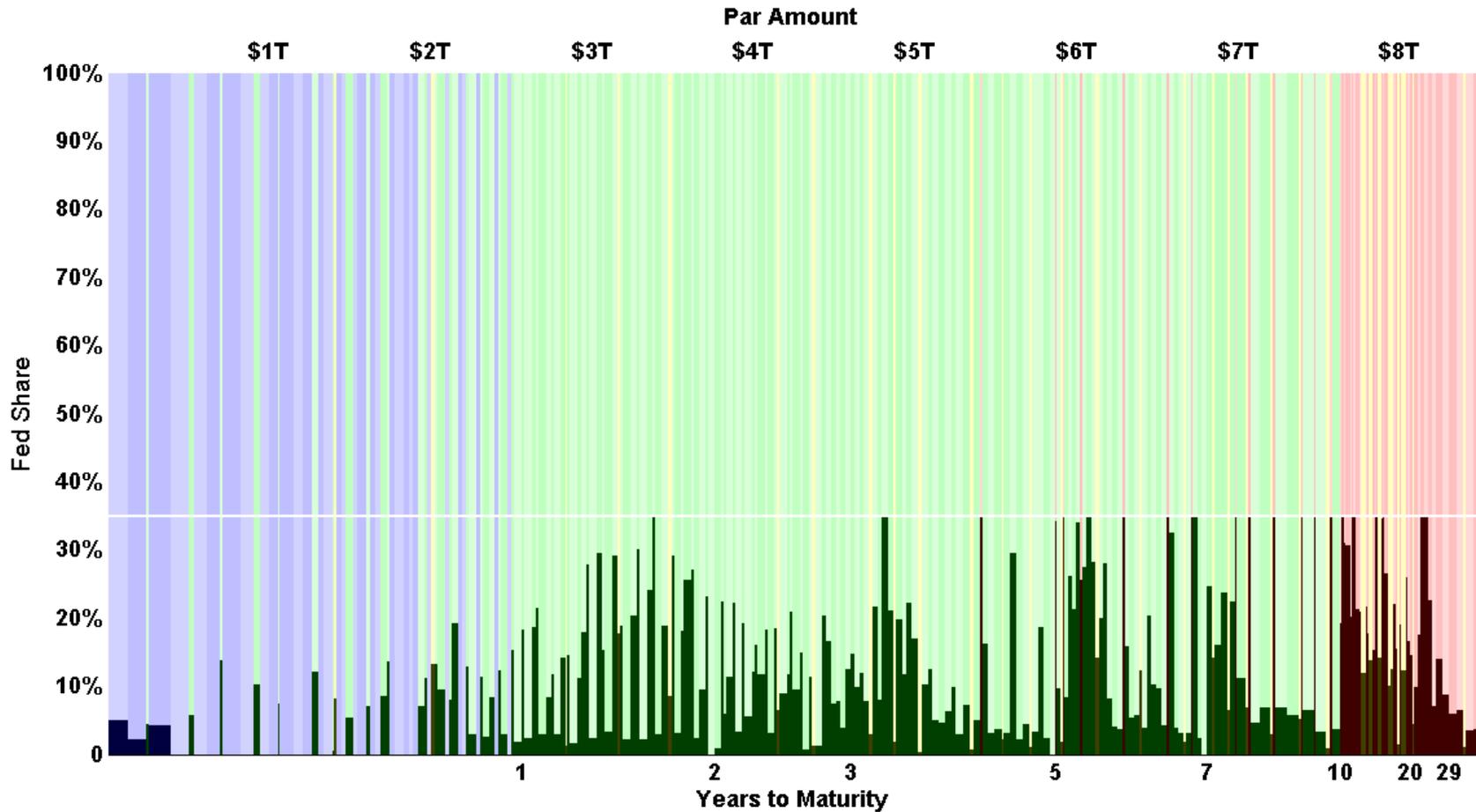
Data Sources: U.S. Treasury, Federal Reserve



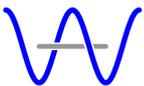
Marketable Treasurys as of September 2010

9% Fed Share

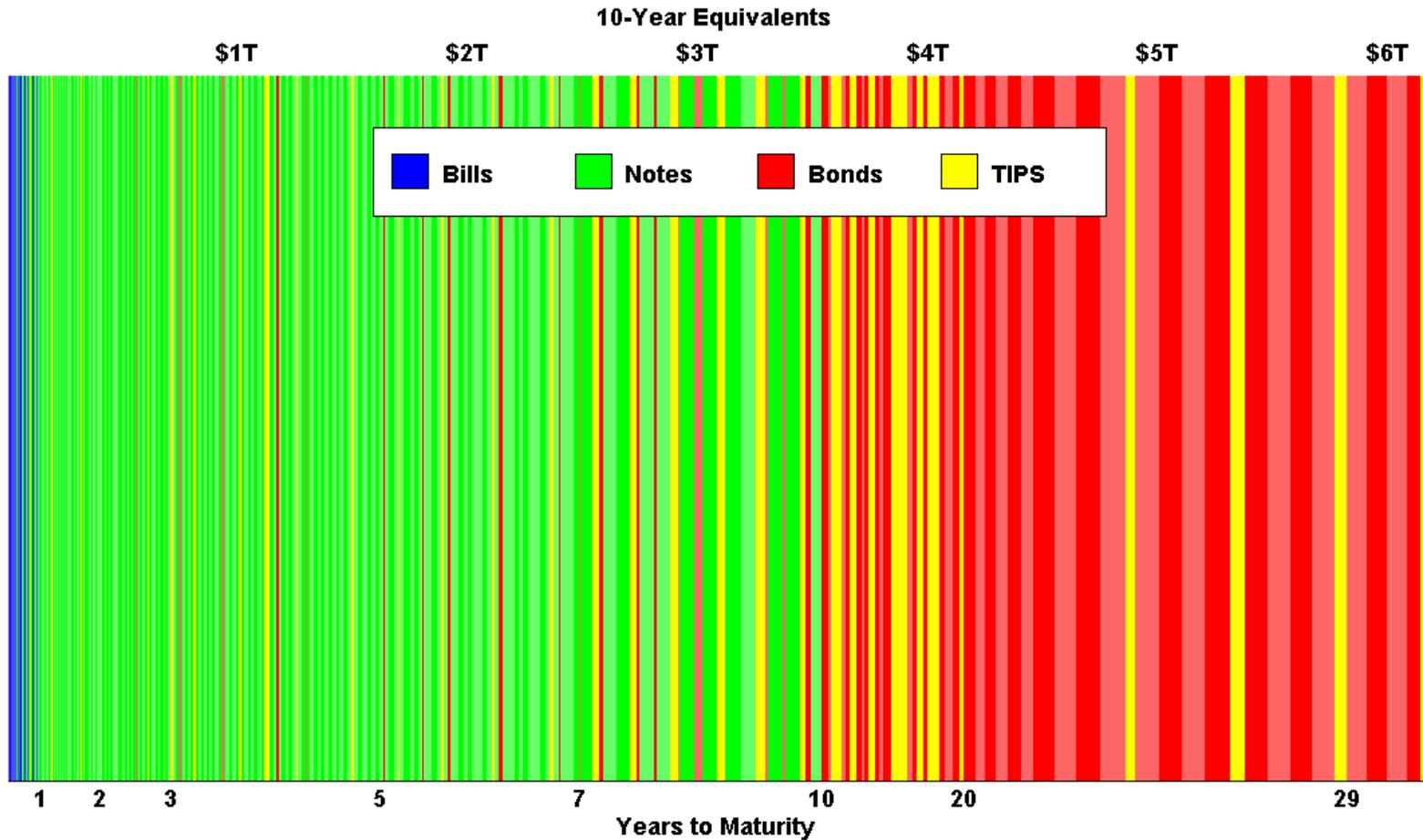
by Par Amount



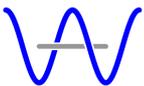
Data Sources: U.S. Treasury, Federal Reserve



Marketable Treasuries Outstanding as of March 2013 by Ten-Year Equivalents



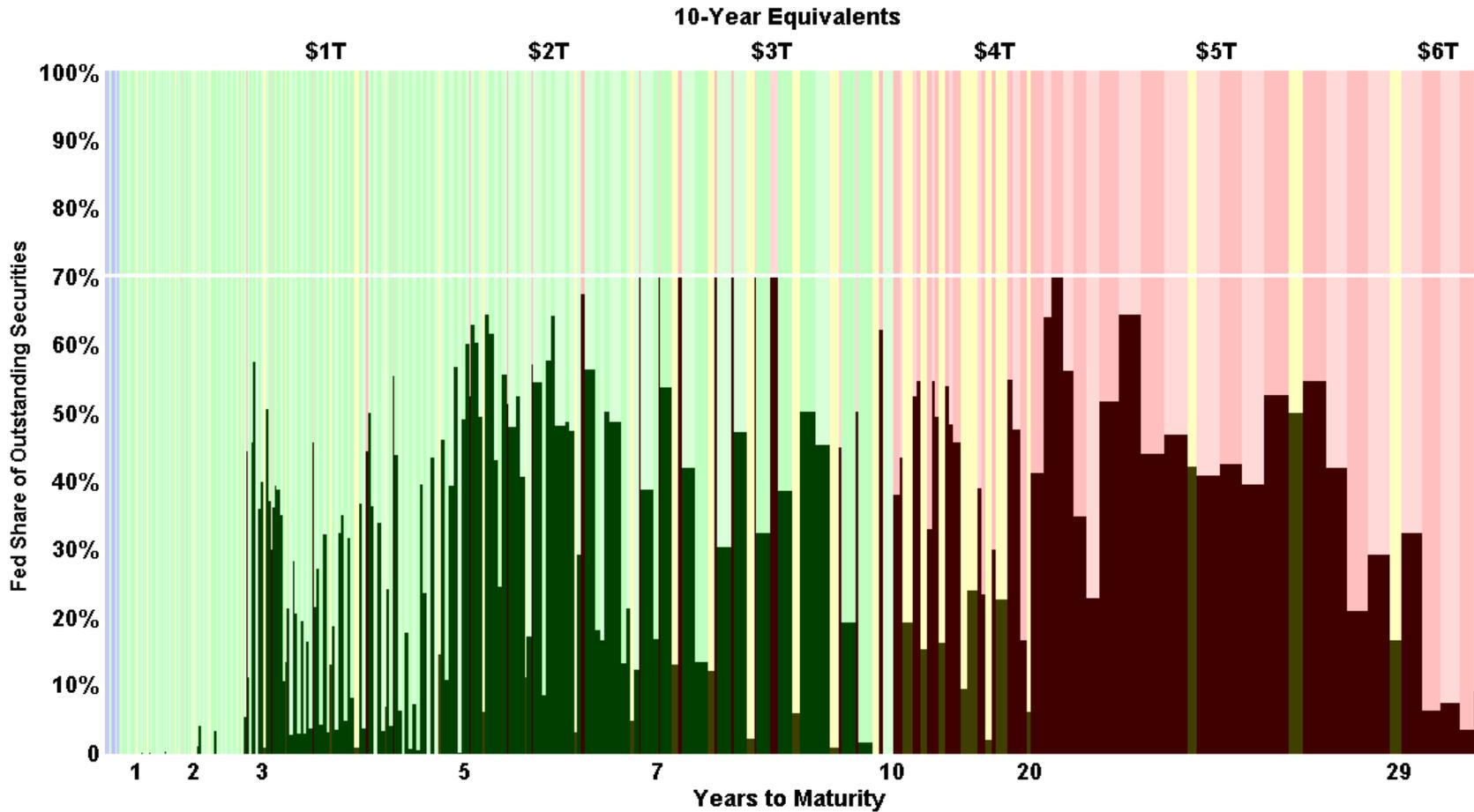
Data Source: U.S. Treasury



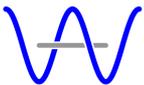
Marketable Treasurys as of March 2013

30% Fed Share

by Ten-Year Equivalents



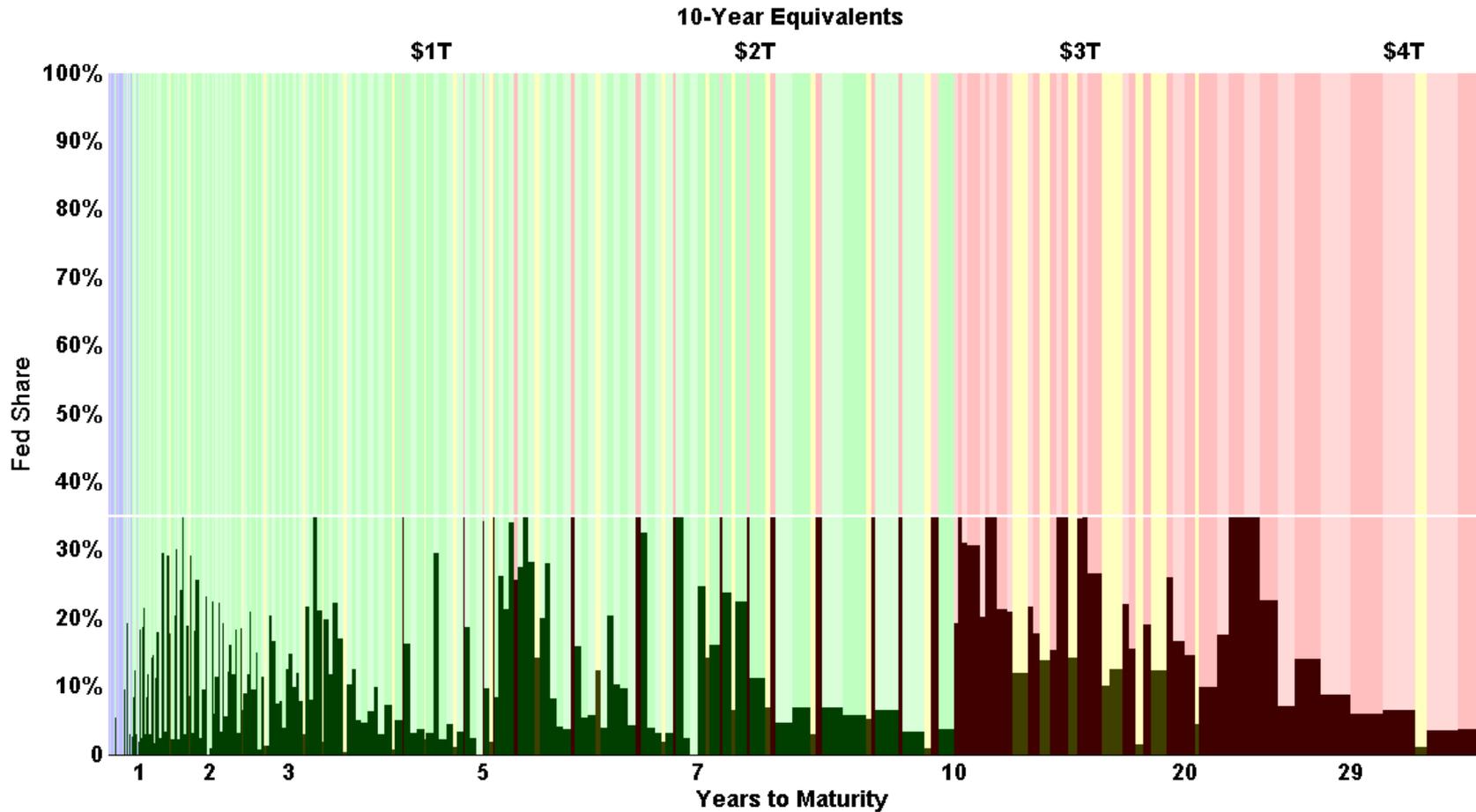
Data Sources: U.S. Treasury, Federal Reserve



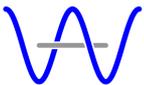
Marketable Treasurys as of September 2010

13% Fed Share

by Ten-Year Equivalents



Data Sources: U.S. Treasury, Federal Reserve



The Fed's Impact on the Treasury Market in "Ten-Year Equivalents"

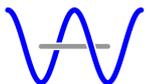
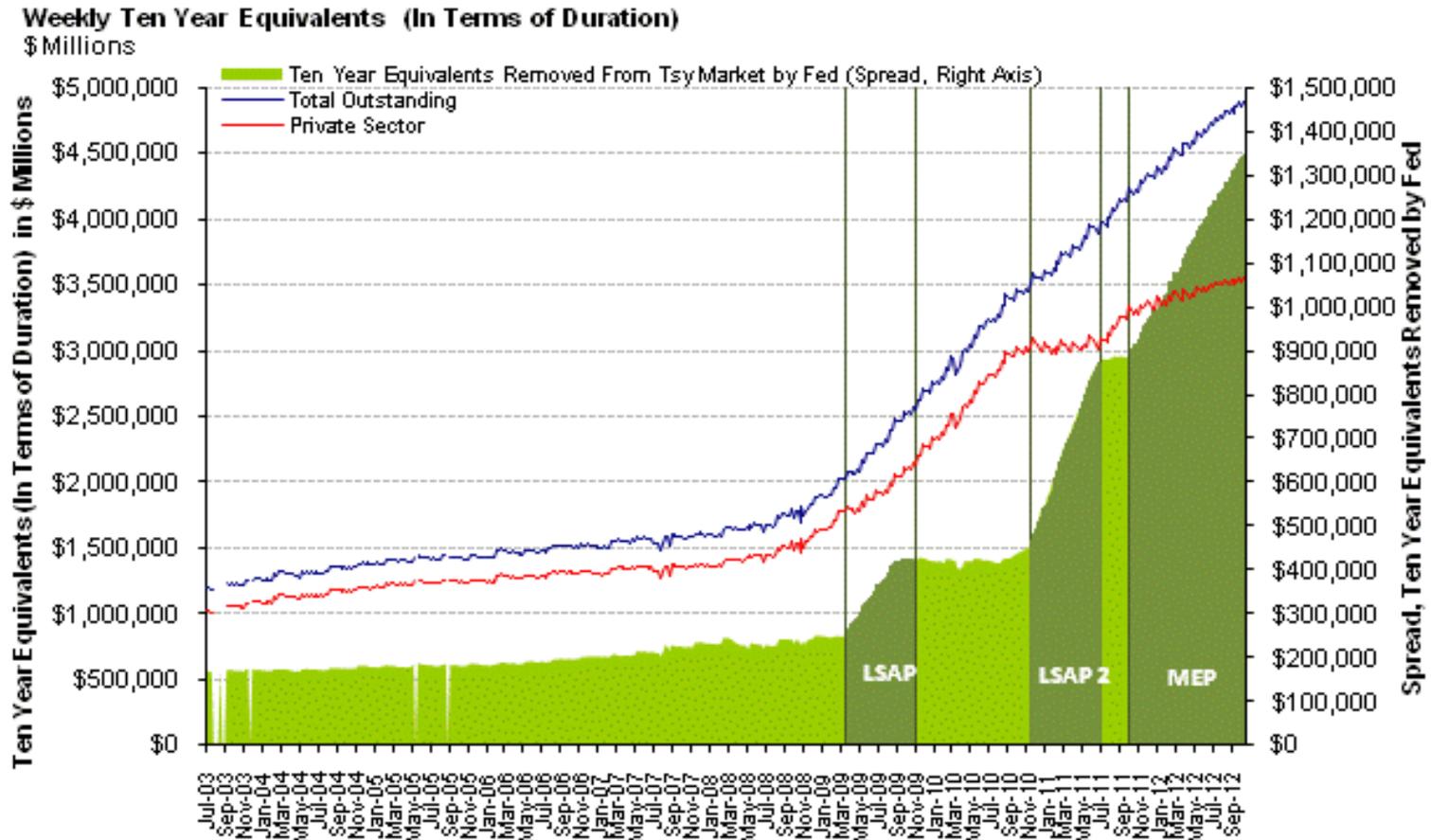
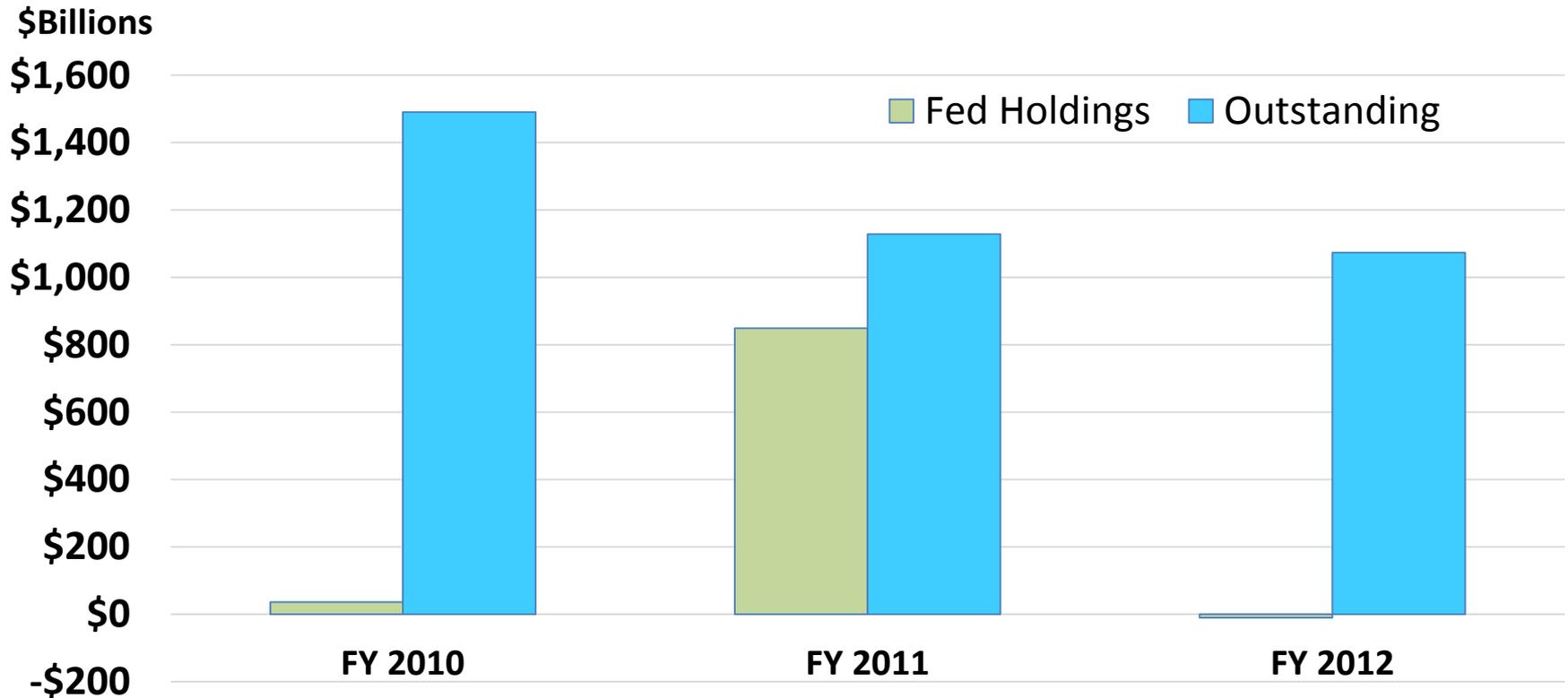


Chart Source: Stone & McCarthy Research Associates

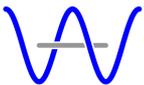
Marketable Treasurys

Annual Changes in Par Amount

Fed Holdings Compared to All Outstanding



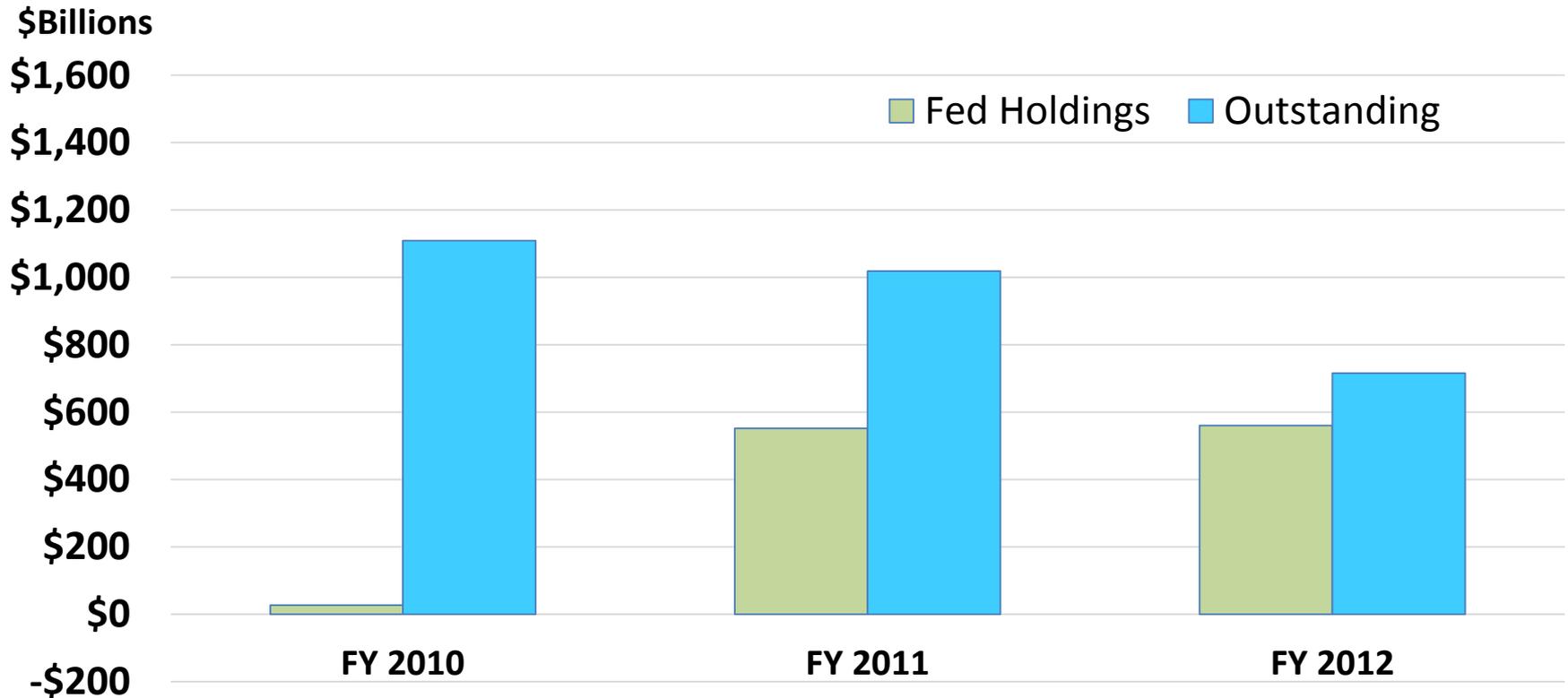
Data Sources: U.S. Treasury, Federal Reserve



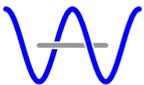
Marketable Treasurys

Annual Changes in Ten-Year Equivalents

Fed Holdings Compared to All Outstanding

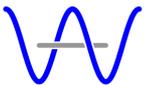


Data Sources: U.S. Treasury, Federal Reserve



Symbiosis in the Bond Market

- The Fed helps the Treasury:
 - Low rates keep interest costs low
 - Front-loaded debt exacerbates Treasury's need for low rates
 - Fed remits net interest income to the Treasury
 - If Fed stimulus succeeds, more revenue to the Treasury
- The Treasury helps the Fed:
 - Limited flow of long debt supports the Fed's efforts to reduce duration held by private investors



The Future of the Fed Portfolio

- Observations
 - In a sense, Treasuries held by Fed have not yet been issued or priced
 - Effective pricing to Treasury will be set when Fed sells
 - Fed could become a second issuer of Treasuries
- Questions
 - When will portfolio stop growing?
 - When and how will it be sold?
 - How will sales impact interest rates?



Implications for Interest Rates

Three Scenarios:

- Rates rise gradually as economy improves
 - Symbiosis dissolves
- Rates remain at low levels for extended period
 - Symbiosis locks in place
- Rates spike
 - Symbiosis breaks under pressure

