

# UNCTAD's Seventh Debt Management Conference

9-11 November 2009

## Treasury Debt Issuance and Recent Financial Events

by

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The views expressed are those of the author and do not necessarily reflect the views of UNCTAD

**Treasury Debt Issuance and Recent Financial Events**  
**Presentation to the Seventh Debt Management Conference**  
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UNITED STATES  
**DEPARTMENT OF  
THE TREASURY**



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**November 9, 2009**

# Contents

- Overview of Treasury Debt Management
- Composition of U.S. Portfolio
- Determinants of U.S. Borrowing Needs and Policy Tools
- Response to the Crisis and Fiscal Environment



# Treasury Issuance Objectives and Constraints

## Our Objectives

- Long-term: Lowest cost of financing over time
- Short-term: Adequate cash balances to cover expenses

## Constraints

- Uncertainty: Forecast errors, legislation, etc. all create uncertainty in deficit forecasts, debt limit problems
- Size: Treasury is too large to behave opportunistically
- Fluctuations in non-marketable debt (Savings Bonds, State and Local Government Securities (SLGS))

## Policy Outcomes

- We are regular market participants, not market timers -- “Regular and Predictable”
- We don’t react to interest rate levels
- We need flexibility
- We strive for transparency



# Composition of Portfolio (as of September 30, 2009)

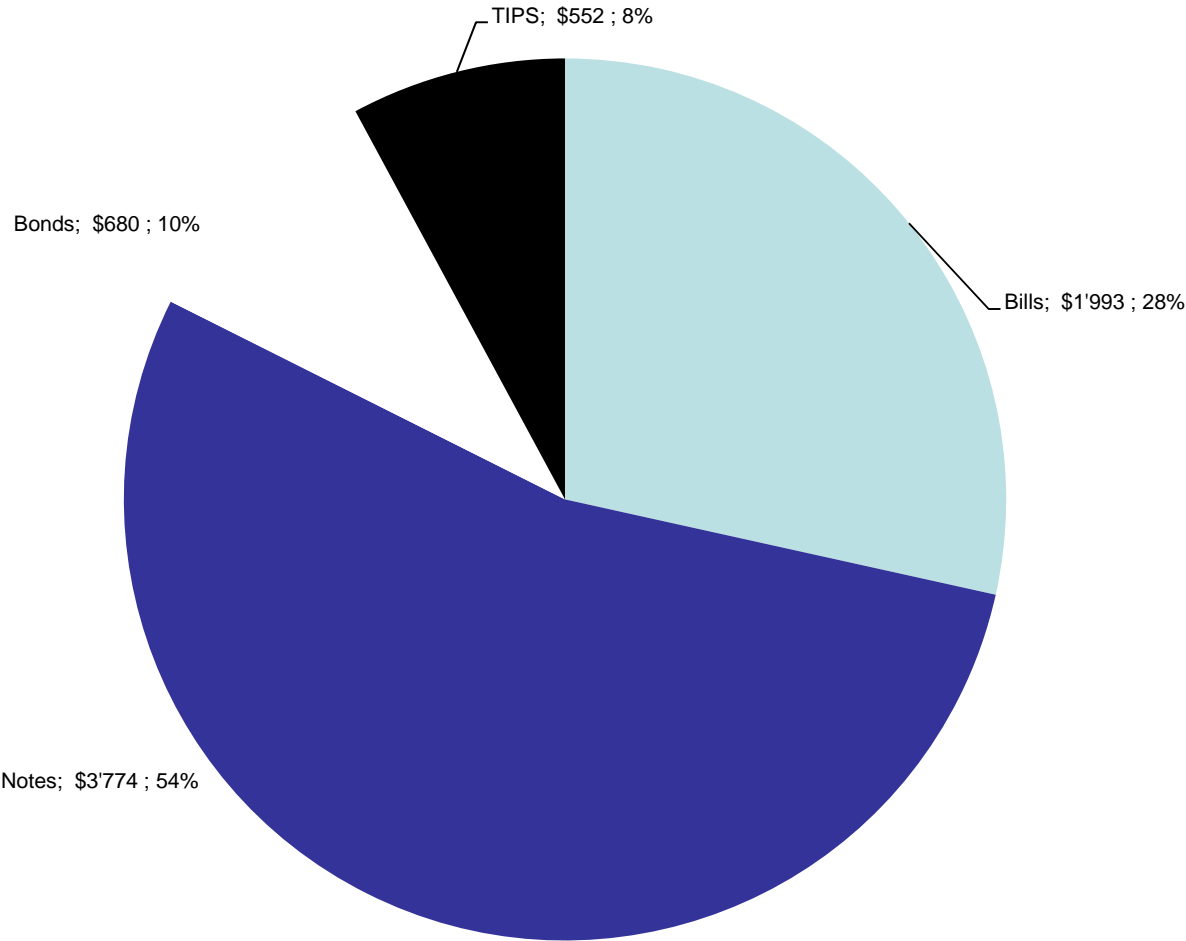
- ◆ Marketable Debt
  - \$7.0 trillion outstanding, can be traded in the secondary market
  - Sold at auction, rates set via competitive bidding
  
- ◆ Non-Marketable Debt
  - \$4.9 trillion outstanding
  - Can only be sold to Treasury
  - Sold by subscription, rates set administratively
  
- ◆ Government Account Series
  - Approximately \$4.5 trillion (mostly special non-marketable) in 135 funds

Federal Old Age Survivors Fund	\$2,296 billion
Civil Service Retirement Fund	\$742 billion
Hospital Insurance Trust Fund	\$310 billion



# Composition of Marketable Debt as of September 30, 2009

**\$7 Trillion Marketable Outstanding**



# Debt Management Policy Tools

- ◆ Treasury's policy tools include the following, always used in a regular and predictable manner:
  - Auction Sizes
  - Auction Frequency
  - Security Offering Menu

- ◆ What does regular and predictable debt issuance mean?

## **U.S. Treasury...**

- **Is a regular market participant, but not a market timer,**
- **Does not react to interest rate levels,**
- **Strives for transparency in decision making,**
- **Provides certainty of supply to the market place,**
- **Engages in “regular and predictable” auctions, of a set of straight forward securities, on a set issuance schedule.**



# Lowest Cost over Time Implies a Diversified Debt Portfolio

## Treasury spreads debt across maturities to...

- Reduce risk
- Diversify the investor base
- Improve cash management
- Facilitate regular and predictable issuance





# Regular and predictable debt issuance with a set auction calendar

## US Treasury issuance schedule – Pattern of financing

Nominal Securities	<u>Frequency</u>	<u>Latest Offering</u>
• 4-week bills (52x)	Weekly	\$30 billion
• 13-week bills (52x)	Weekly	\$30 billion
• 26-week bills (52x)	Weekly	\$29 billion
• 52-week bills (13x)	Every 4 weeks	\$27 billion
• 2-year notes (12x)	Monthly	\$44 billion
• 3-year notes (12x)	Monthly	\$39 billion
• 5-year notes (12x)	Monthly	\$41 billion
• 7-year notes (12x)	Monthly	\$31 billion
• 10-year notes (12x)	Quarterly, with 2 re-openings	\$23/20 billion
• 30-year bonds (12x)	Quarterly, with 2 re-openings	\$15/12 billion
Treasury Inflation Protected Securities (TIPS, our inflation linked product)		
• 5-year TIP (2x)	Semi-annual	\$8/7 billion
• 10-year TIP (4x)	Quarterly	\$8/7 billion
• 20-year TIP (2x)	Semi-annual	\$8/6 billion



# Determinants of U.S. Treasury Borrowing Needs

**Changes in Cash Balance**

**Budget Deficit/Surplus**

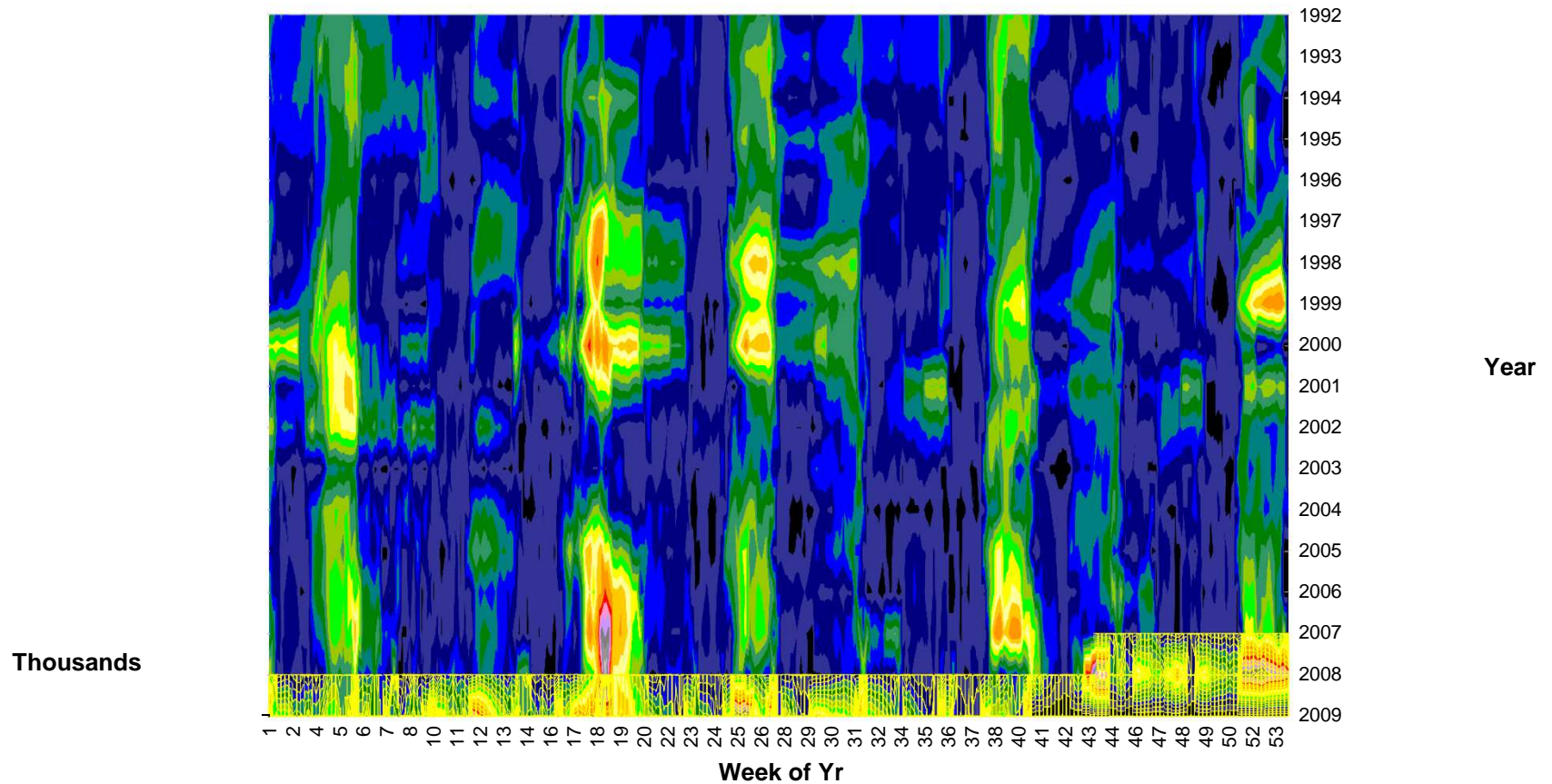
**Economic Outlook**

**Volume of Maturing Issues (Rollover)**



# Balances are cyclically predictable, but magnitude hard to guess— necessitating bill financing

Treasury Daily Operating Balance  
1992-2009

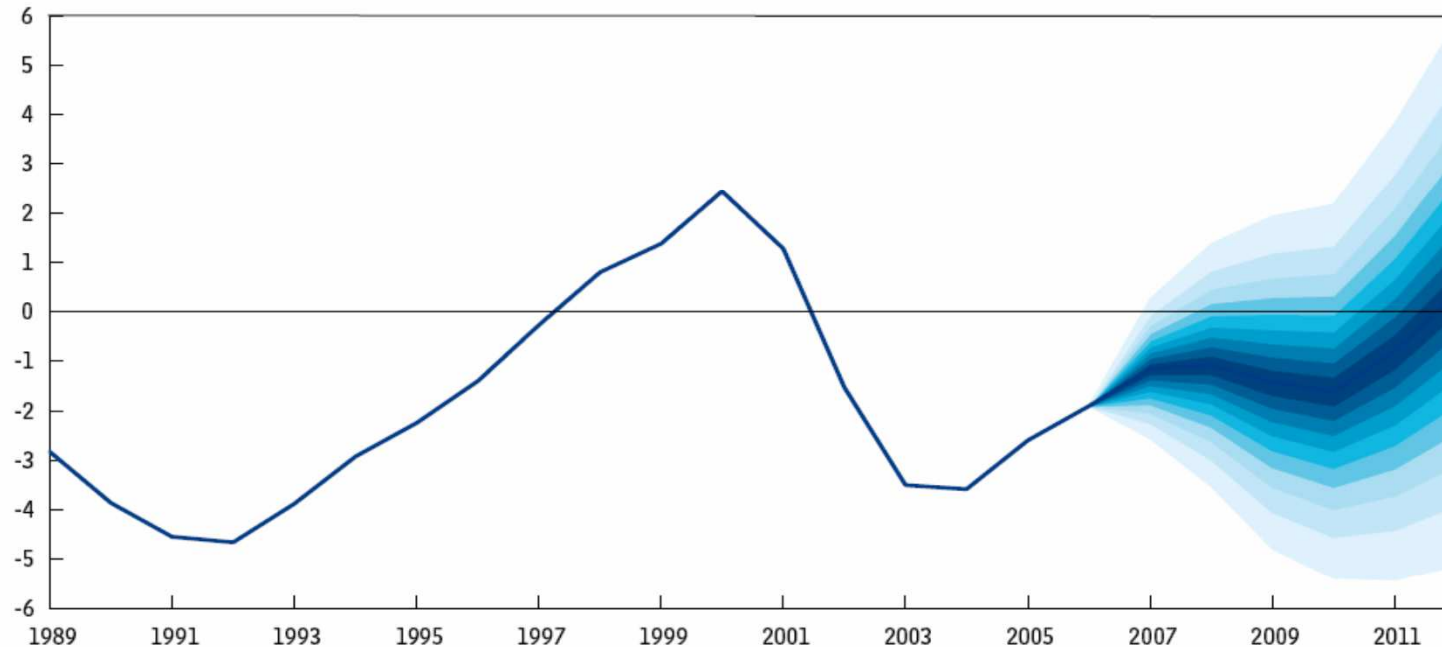


# Uncertainty About Future Budget Situation

**Figure 1-2.**

## Uncertainty of CBO's Baseline Projections of the Budget Deficit or Surplus Under Current Policies

(Percentage of gross domestic product)



Source: Congressional Budget Office.

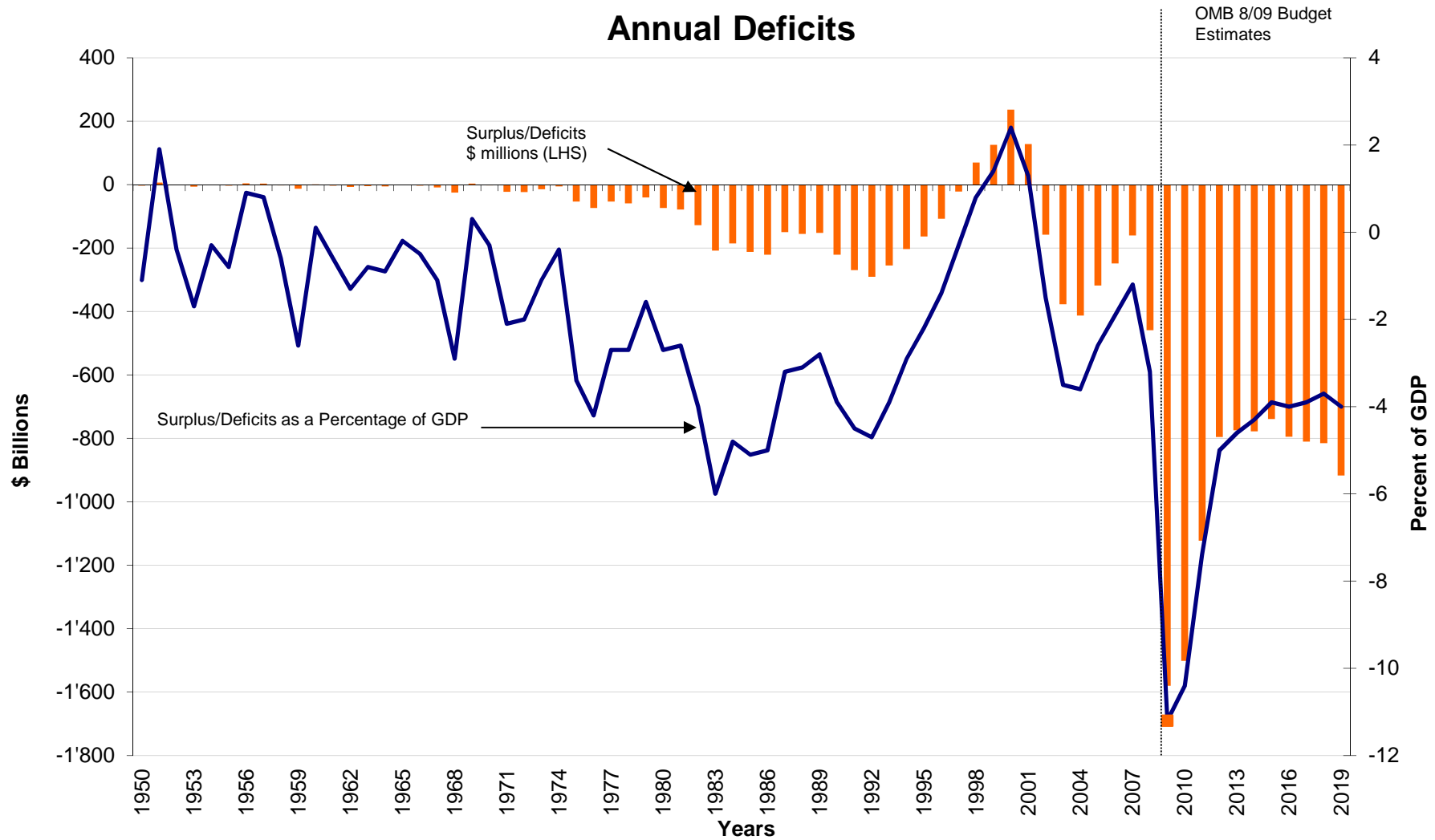
Notes: This figure, calculated on the basis of CBO's track record in forecasting, shows the estimated likelihood of alternative projections of the budget deficit or surplus under current policies. The baseline projections described in Chapter 1 fall in the middle of the darkest area of the figure. Under the assumption that tax and spending policies will not change, the probability is 10 percent that actual deficits or surpluses will fall in the darkest area and 90 percent that they will fall within the whole shaded area.

Actual deficits or surpluses will be affected by legislation enacted in future years, including decisions about discretionary spending. The effects of future legislation are not reflected in this figure.

For an explanation of how CBO calculates the probability distribution underlying this figure, see Congressional Budget Office, *The Uncertainty of Budget Projections: A Discussion of Data and Methods* (March 2007).

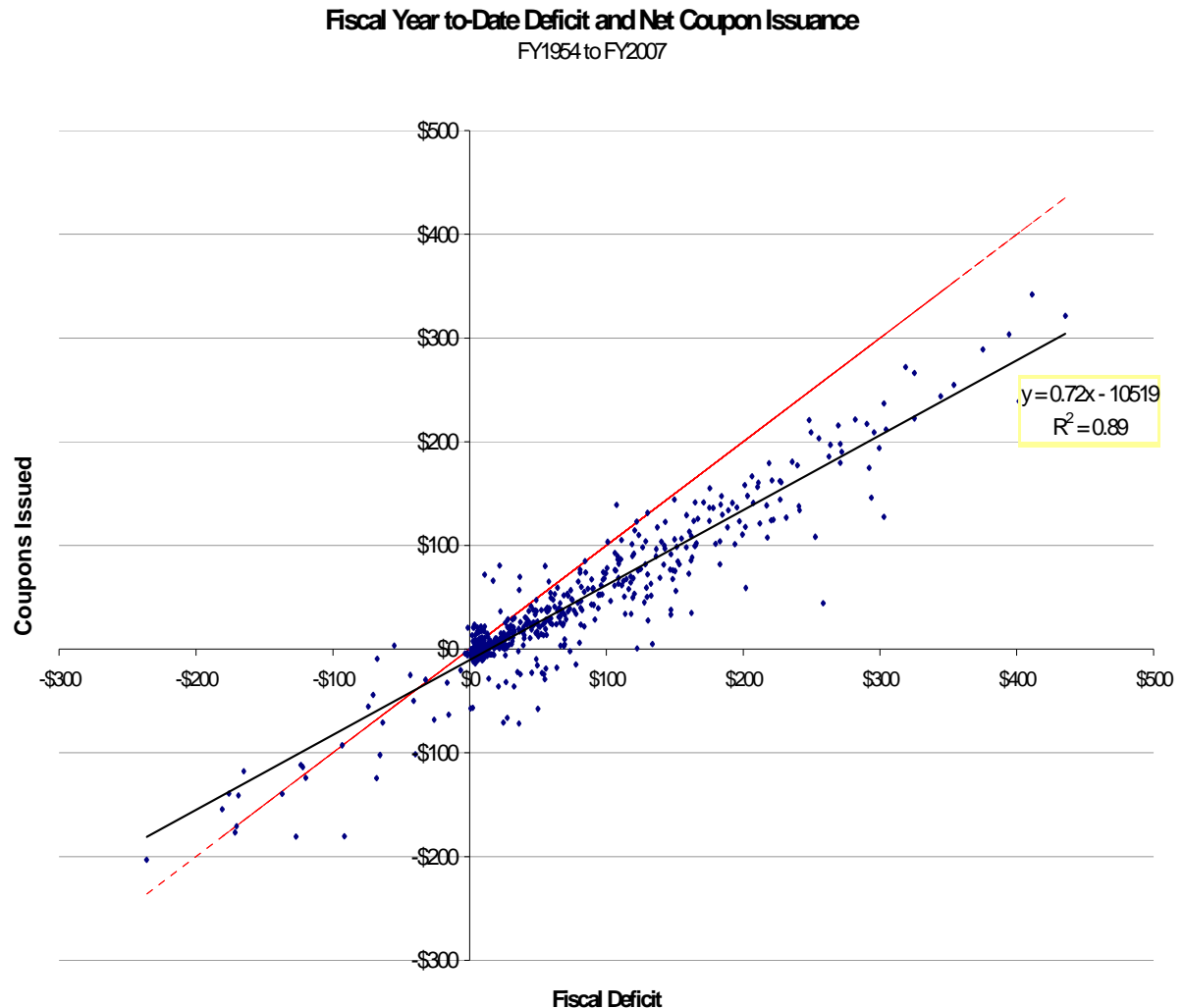


# Uncertainty and Sharp Deficit Swings Imply a Need for Flexibility



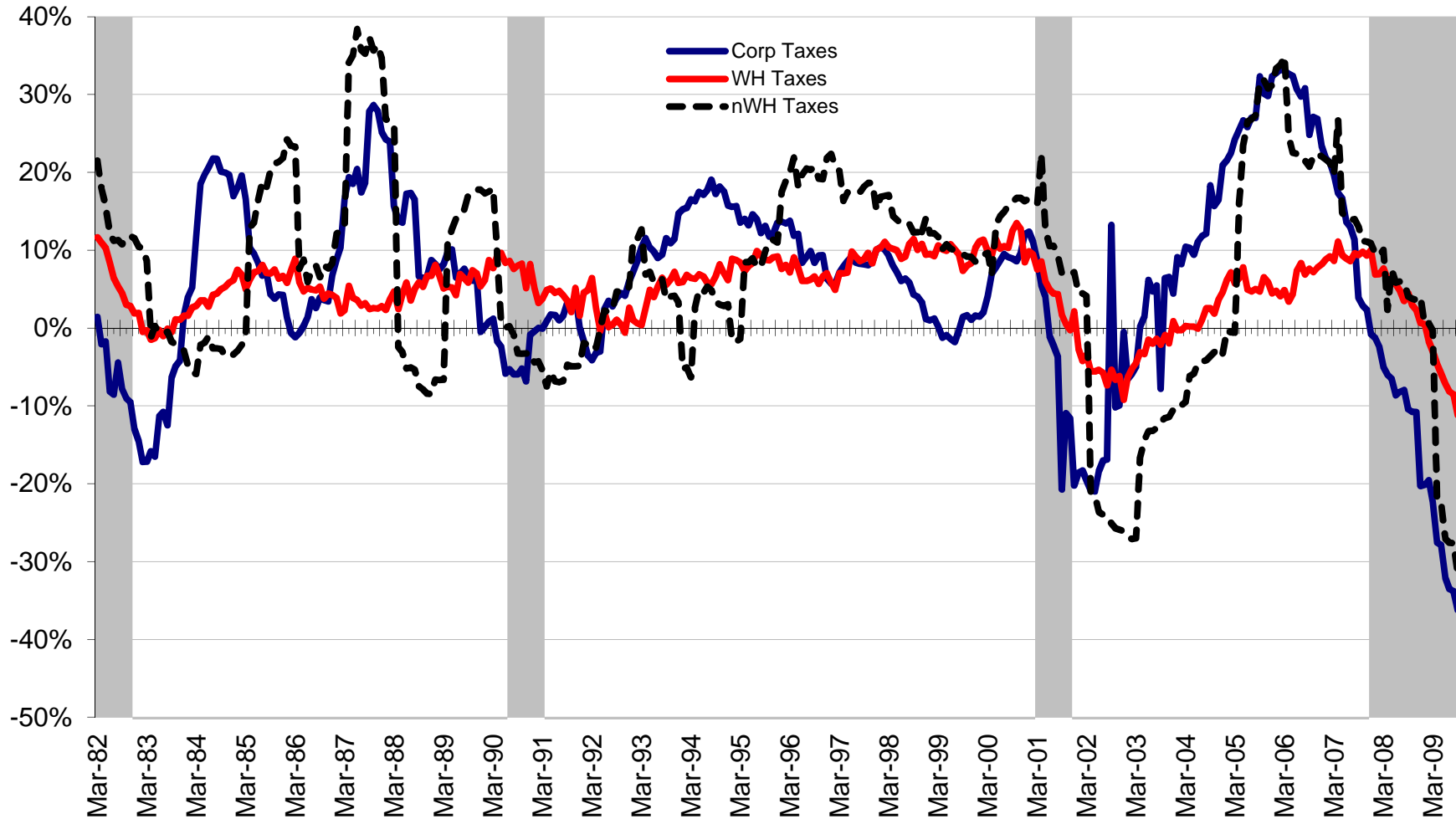
# Structural Deficit Changes are connected to coupon issuance

- ◆ Data for the past 50 years show a strong, consistent relationship between the budget deficit throughout the fiscal year and the net annual issuance of notes and bonds.
- ◆ A \$10 billion change in the deficit will generate a \$7 billion change in net issuance.
- ◆ This relationship can be used to project changes in net financing needs as budget projections change.



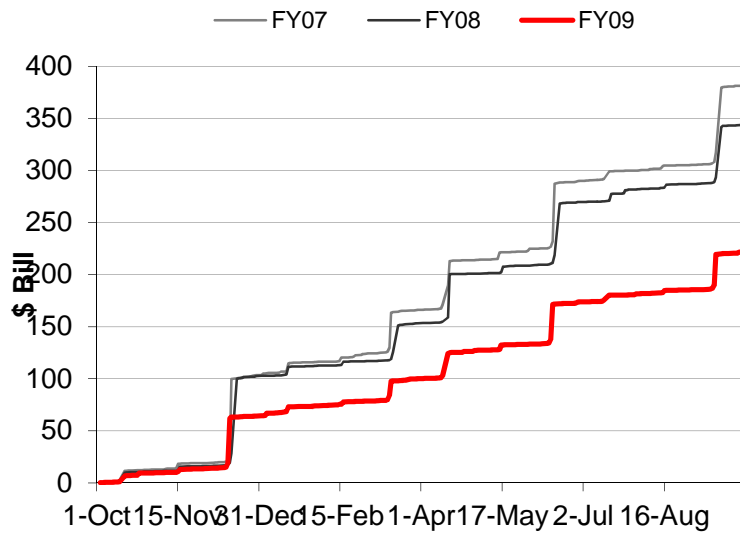
Declines in corporate tax receipts have generally preceded lower growth in individual withheld and non-withheld receipts.

Rolling 12-Month Growth Rates

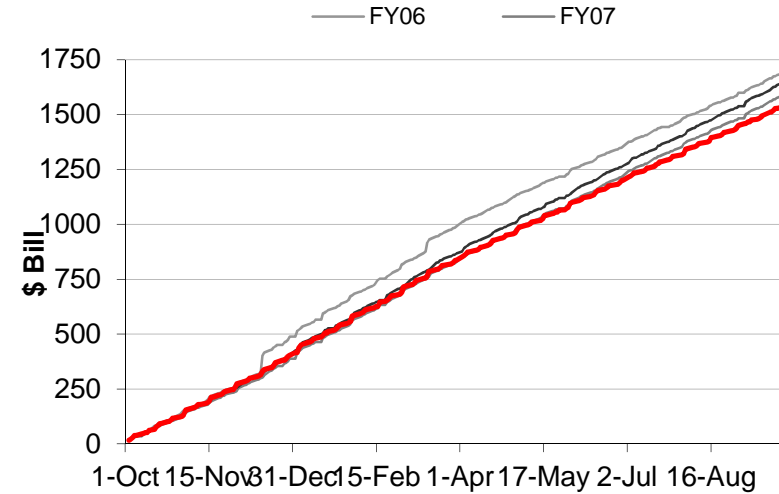


# Receipts for FY 2009 are lower

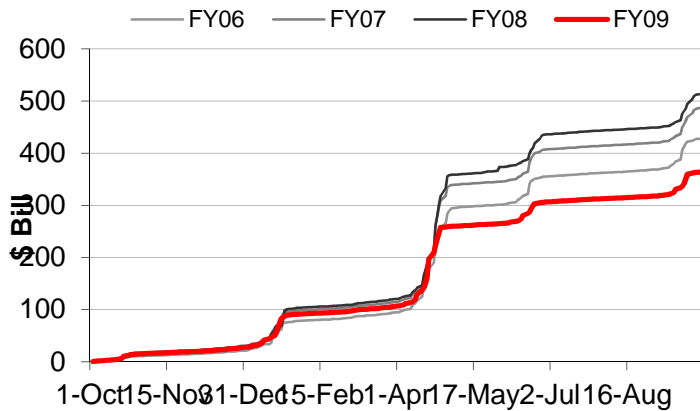
### Corporate Income Tax



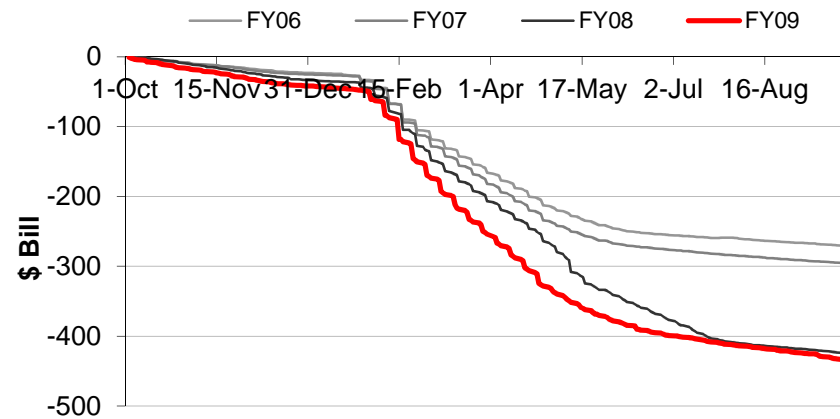
### Withheld Individual Tax



### Non-Withheld Individual Tax



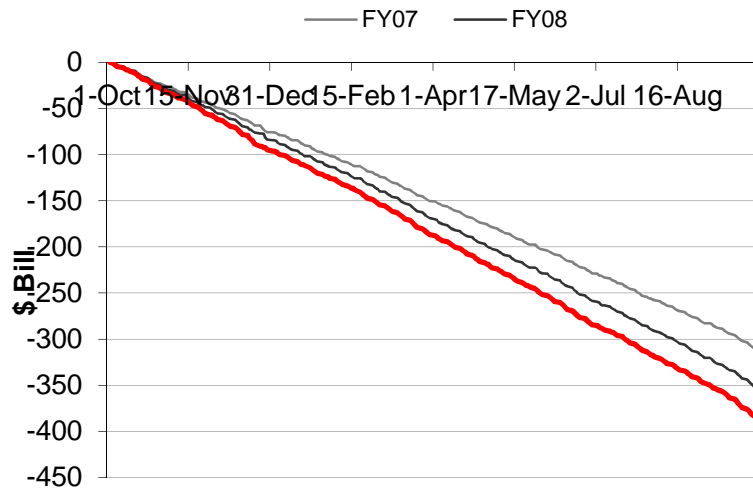
### Tax Refunds



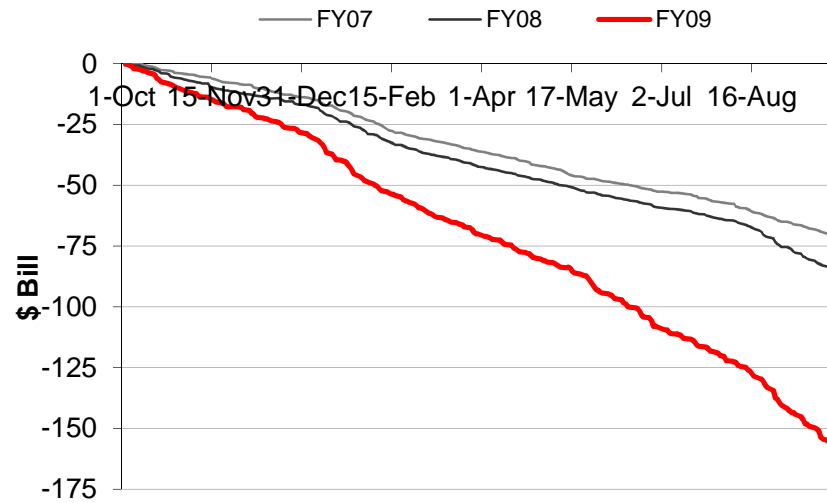


# And outlays have increased in 2009.

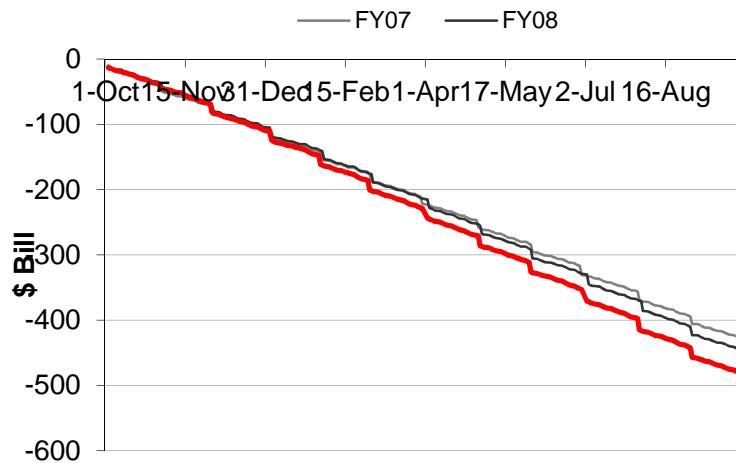
### Defense Vendors



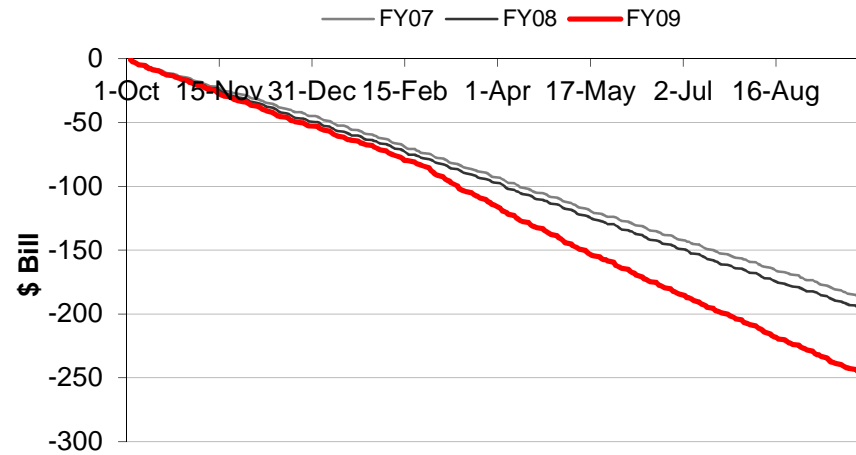
### Education



### Medicare

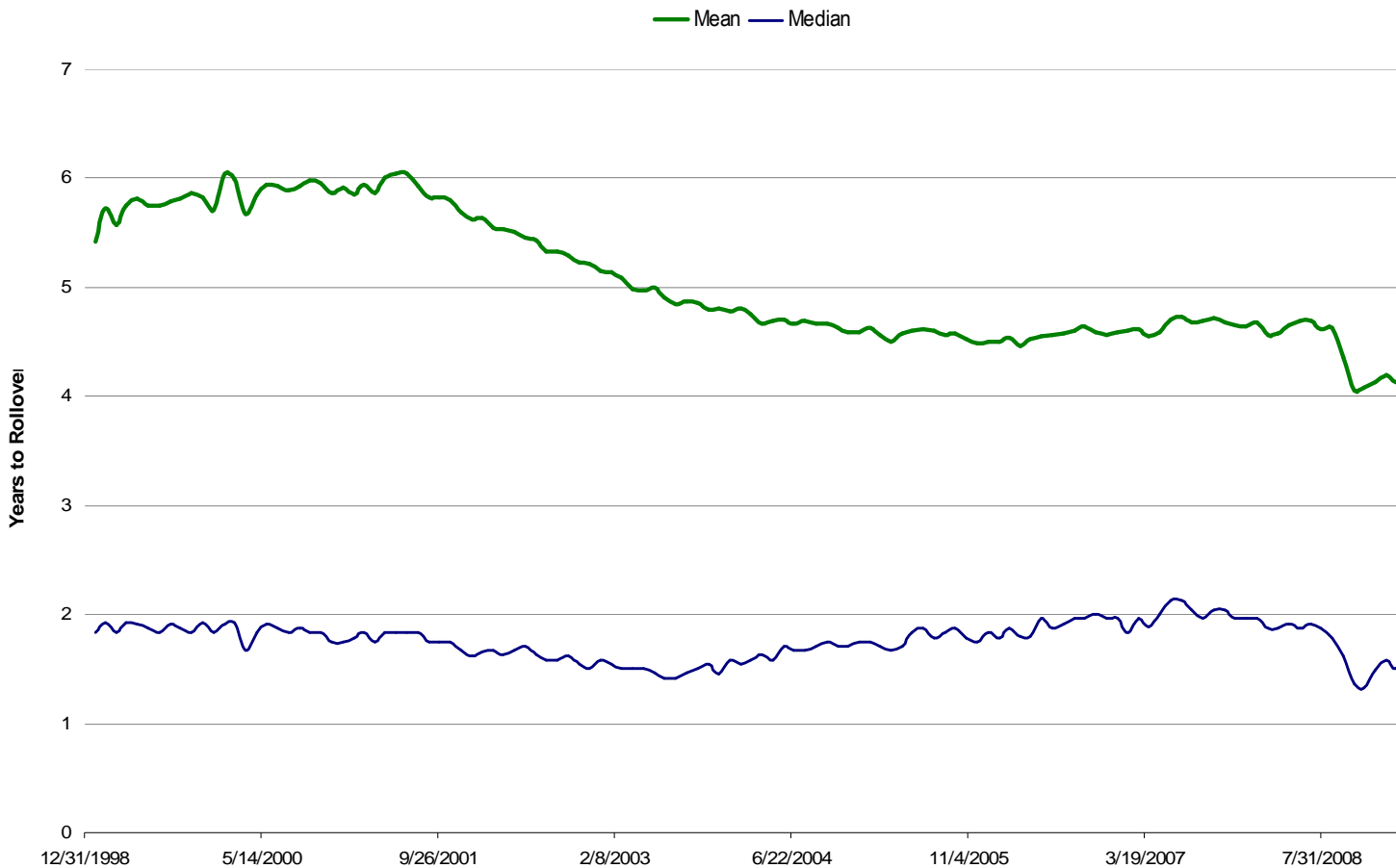


### Medicaid



# Rollover of maturing debt is another important consideration

## Outstanding Marketable Debt: Median and Mean Rollover Period



# How Debt Managers Responded to Fiscal Uncertainty in 2007 & 2008

**Background: 2007, Provided Headroom**

**Full Crisis: 2008, Strategic Addition of Issuance Tools**



## In 2007 Treasury Had Excess Capacity

- ◆ *Treasury cut bill issuance and coupon issuance because cash balances were healthy.*
  - Suspended issuance of 3-year note in May 2007
  - Reduced bill issuance to minimal levels consistent with market liquidity
- ◆ *This proved to be a fortunate move when we came under subsequent pressure and had to increase amounts. This gave debt managers headroom before crisis.*



## August 2007 –SOMA Reductions Begin

- ◆ *Federal Reserve began to reduce its holdings of Treasury bills*
  - System Open Market Account is the portfolio of Treasury and agency securities that the Federal Reserve owns and uses to maintain interest rates and markets through repo activities.
  - The Federal Reserve cannot augment its portfolio by direct purchases from the Treasury. It may only rollover maturing securities in new auctions from the Treasury, although it can let its holdings mature without replacement. All other securities are bought or sold in the secondary market.
  - In the summer of 2007, the Federal Reserve held about \$200 billion of its SOMA in Treasury bills.
  - As bills held in SOMA matured, these were allowed to roll off.



## February 2008 -- The first financial stimulus

- ◆ *In February 2008, talk began to focus on a proposed fiscal stimulus in the form of a rebate in advance on 2008 taxes.*
  - The rebate was to be paid in 2008 based on 2007 tax filings.
  - These rebates would total \$100 billion and were to be paid out rapidly starting in May 2008.
  
- ◆ *The challenge lay in raising sufficient money in a few weeks to cover the checks when they were cashed.*
  - Began with cash management bills long-dated
  - This was a change from standing policy of keeping CMBs at no more than 21 days long. They were meant to absorb shocks.
  - Aim was to carry financing until increases in coupons could catch up



## Summer 2008 – Present: Dealing with the crisis.

- ◆ *Assisting the Federal Reserve*
  - By summer 2008, the Fed had sold or redeemed 90% of its holdings of Treasury bills.
  - It now holds about \$18 billion.
  - As these bills held in SOMA were allowed to mature, they had to be replaced by offerings to the public
- ◆ *Additionally, the suspension of the 3-year was beginning strain issuance profile.*
  - Maturing notes had to be financed. This led to regular CMB issuance over quarterly refunding

### *Response:*

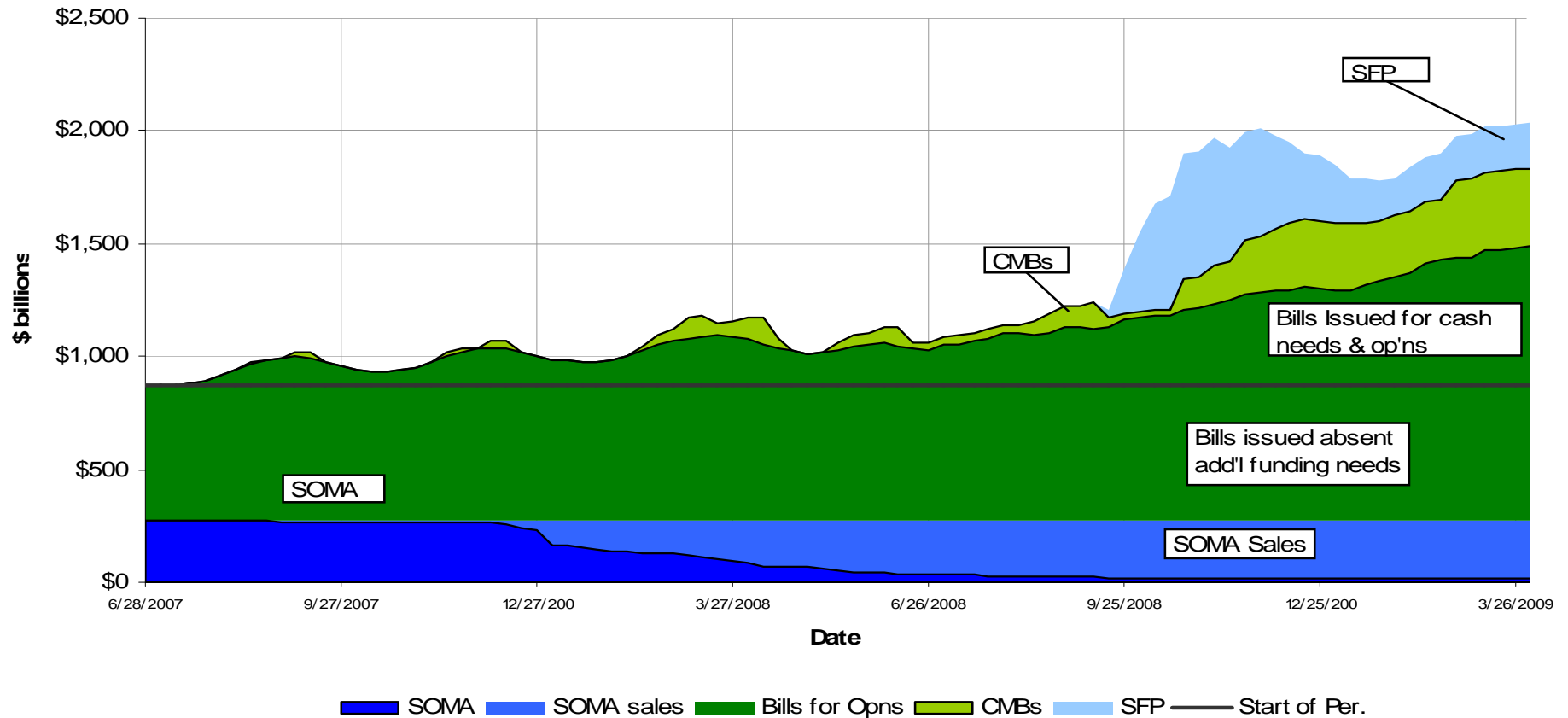
- ◆ *Brought the 1-year bill back after a 7 year absence on a revolving 4-week cycle*



# Bill Financing in Response

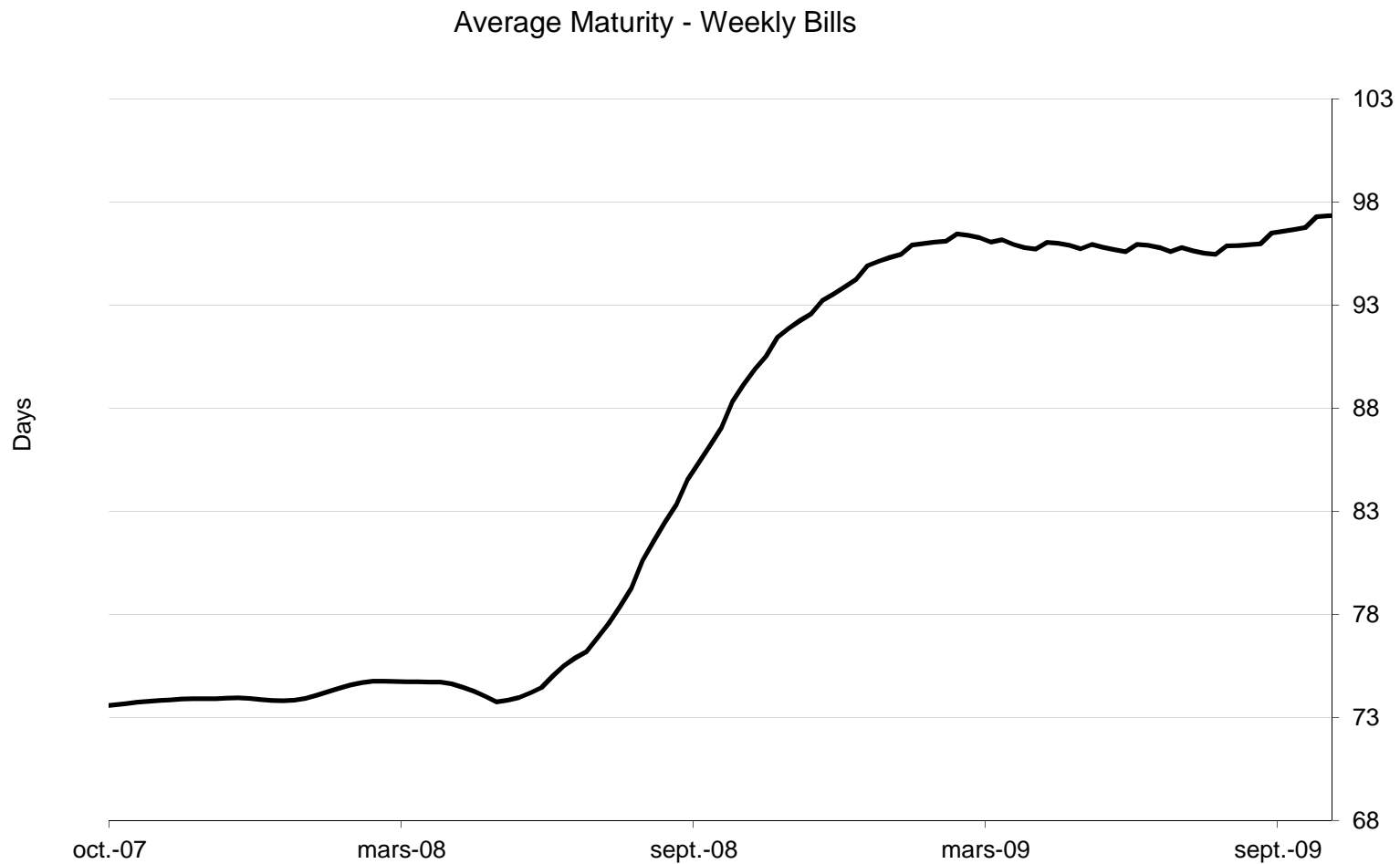
## Allocation of Debt for Bill Financing

1. Fed redemption and sale of SOMA were matched by additional issuance to private holders.
2. Additional deficit has required further bill financing above level at start of period.
3. CMBs have been needed for additional financing.
4. SFP program initiated on Sept 17.

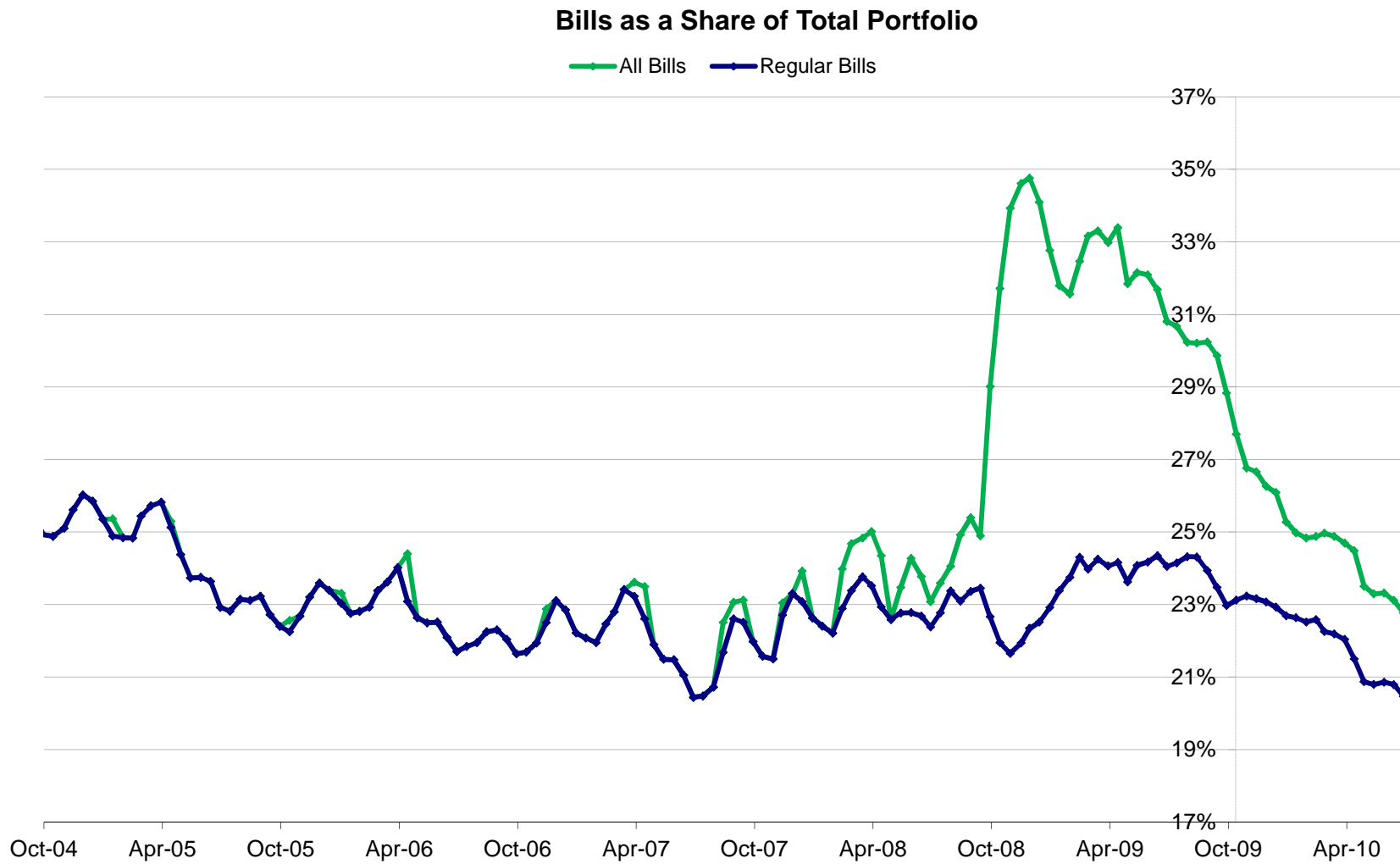




# Bringing in the 52-week bill increased bill maturity

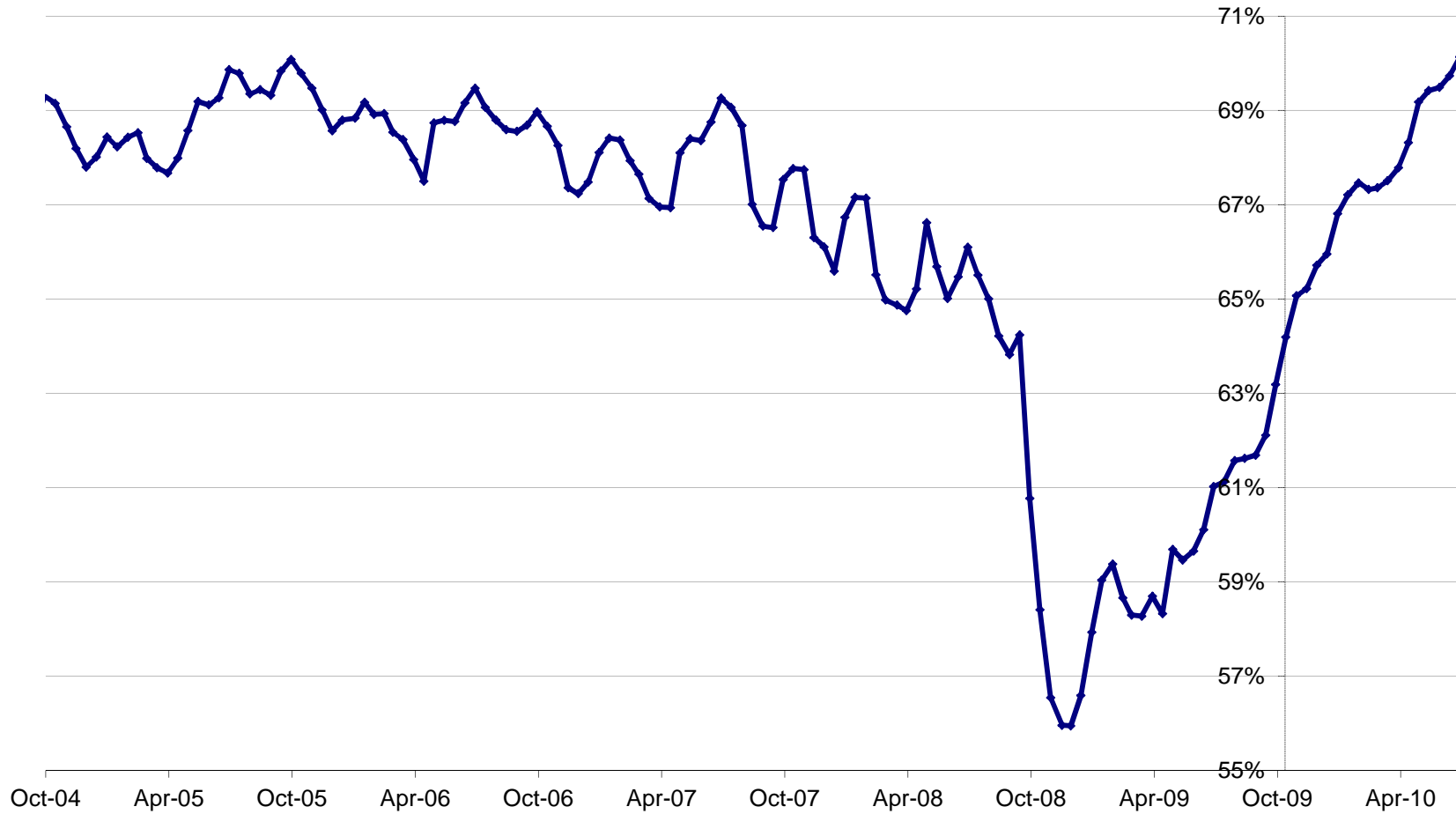


# Bill Share of Portfolio Temporarily Raised



# Taking Both Nominal Coupons ...

Nominal Coupons as a Share of Total Portfolio



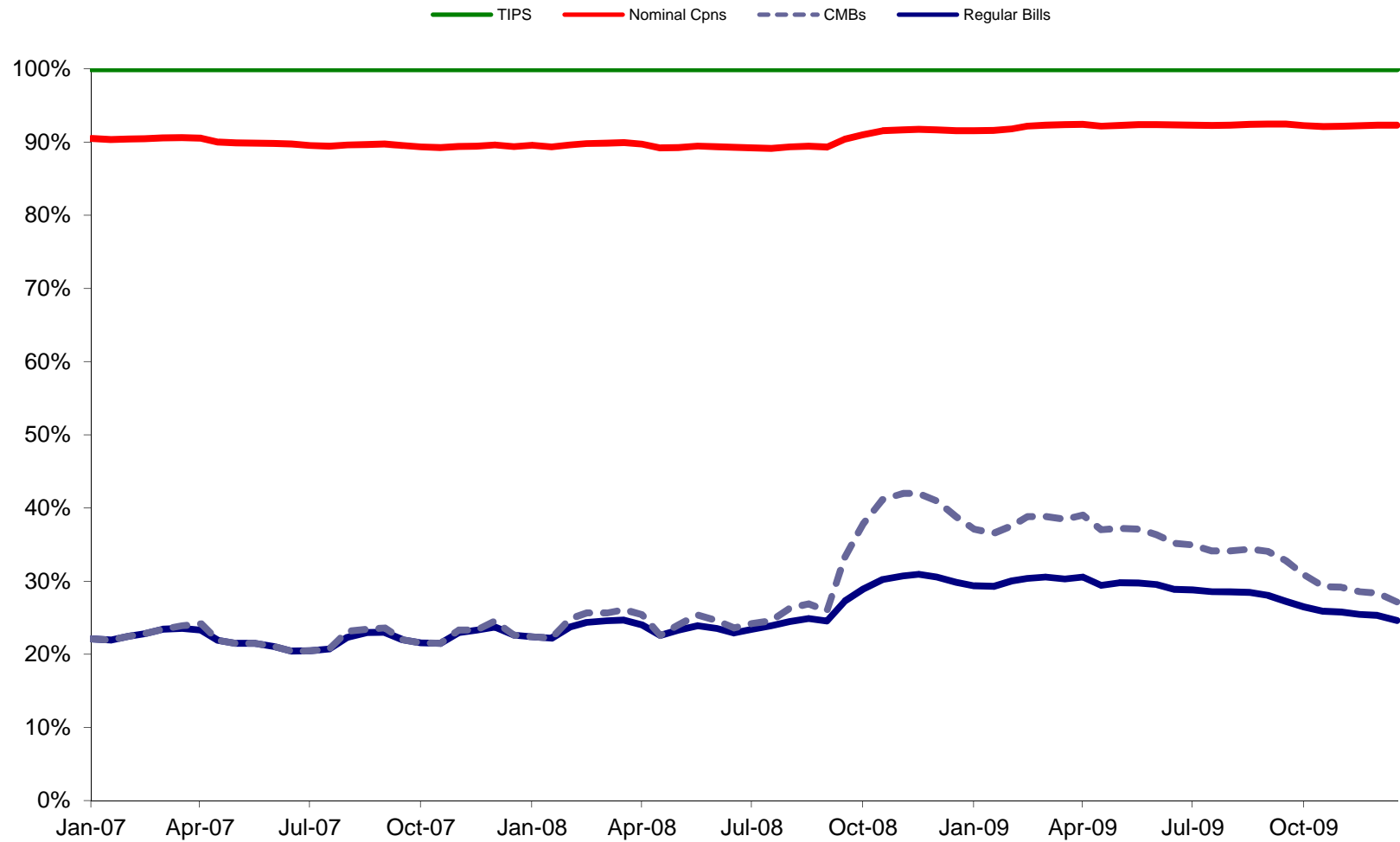
# And TIPS Lower.

TIPS as a Share of Total Portfolio



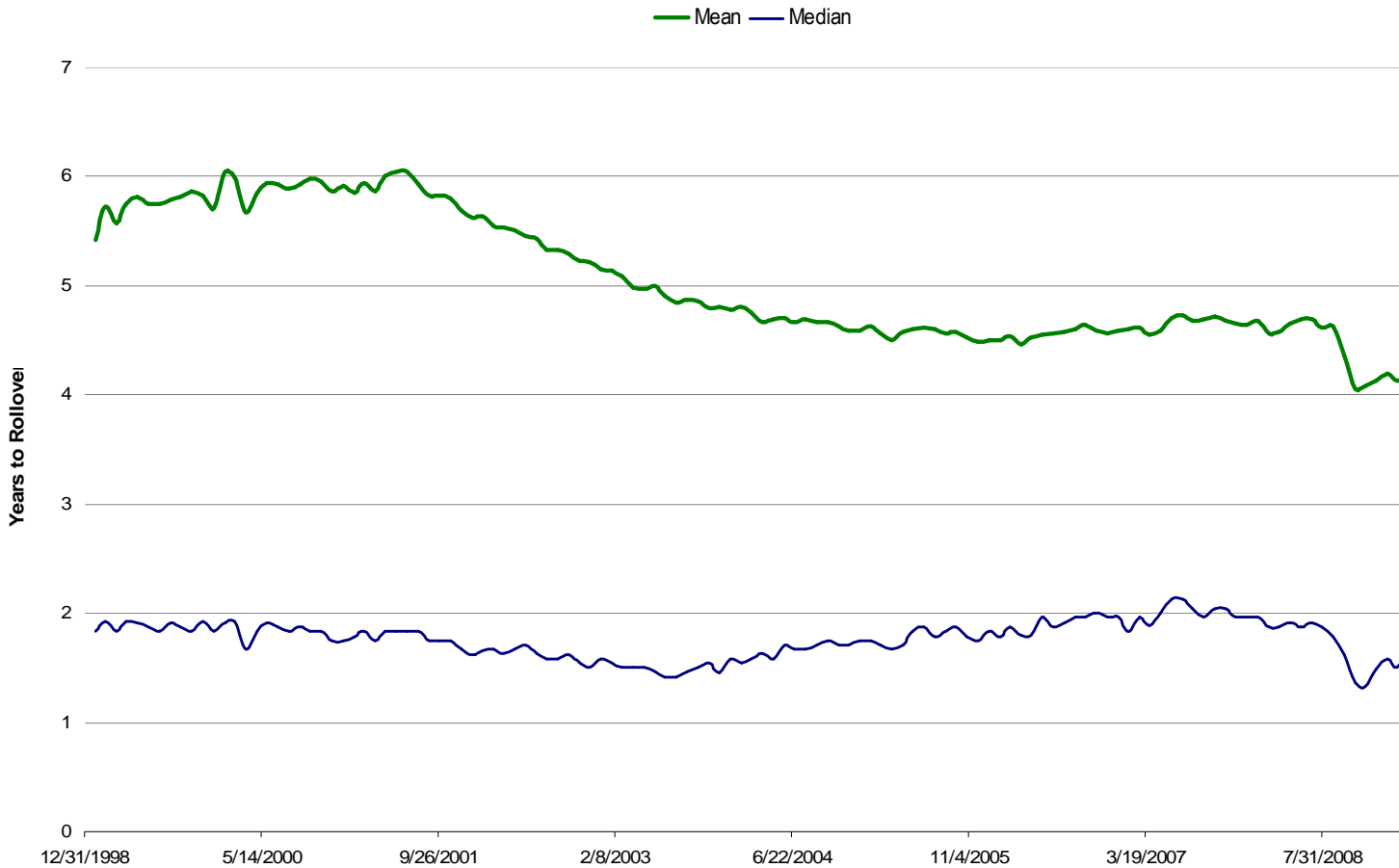
# A Temporary Rise in Bills.

## Shares of Total Debt Outstanding



# We now must work out of a rollover challenge

Outstanding Marketable Debt: Median and Mean Rollover Period



## Reinstating the 3-Year Note

- ◆ After consultation with the market the 3-year note was issued again starting in November 2008.
- ◆ It was now issued on a monthly schedule. Prior to suspension, the issuance had been quarterly.



## Return of the 7-Year Note

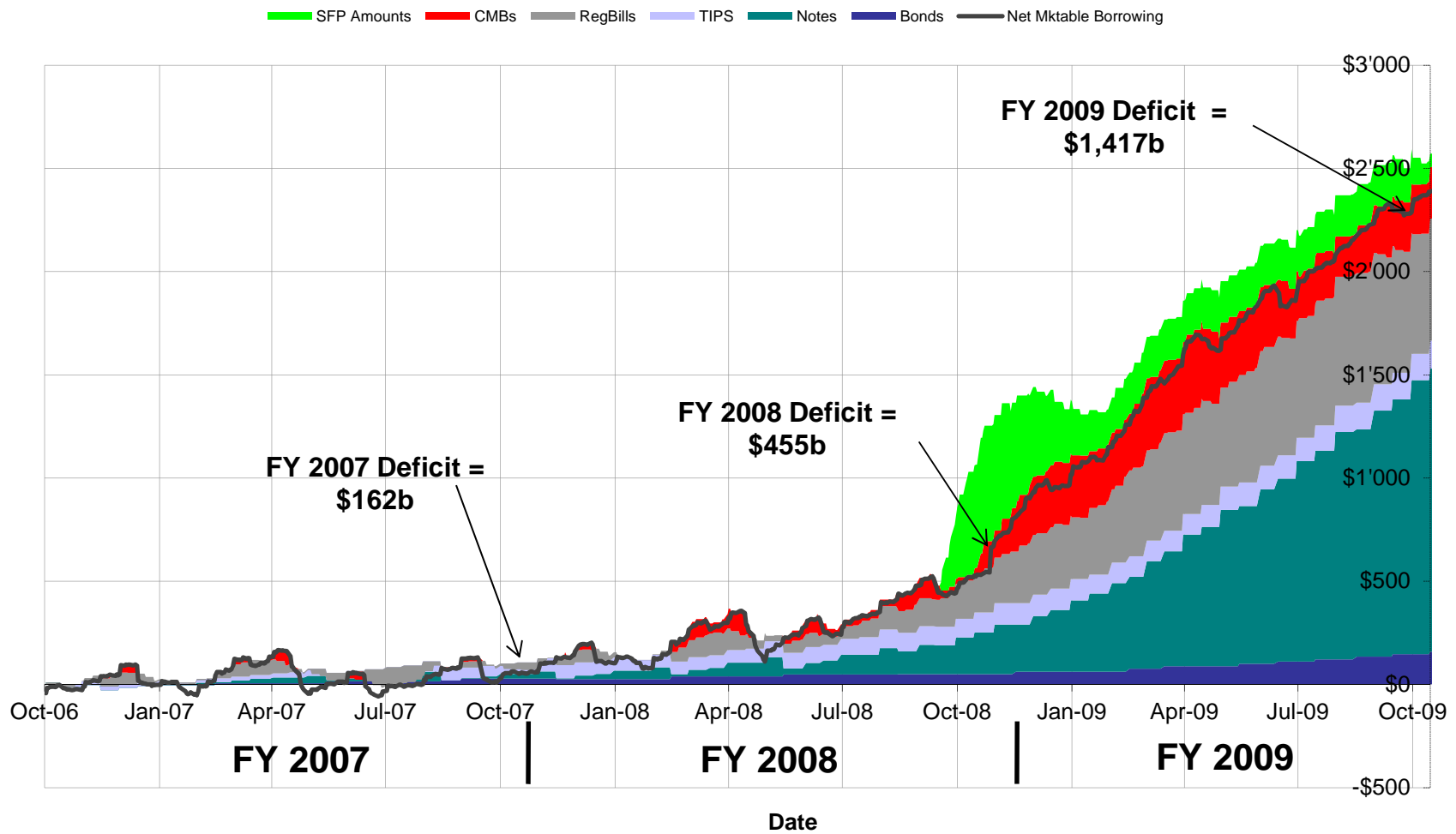
- ◆ As expenditures for TARP and other actions increased, it was determined that another coupon issue was needed.
- ◆ In February 2009, issuance began again for the first time since 1993.
- ◆ The 7-year note is issued monthly.
- ◆ It has the attraction that its duration approximates that of most mortgage securities in the market.





# Maturity Profile Changes -- Coupon Replacing Bills with Time

Cumulative Financing Net Flows since FY 2007



# Summary Treasury Debt Management

- ♦ Economic and financial market volatility has an impact on the fiscal outlook
- ♦ Treasury constantly revisits its assumptions and forecasts when making debt issuance decisions, but overall strategy remains consistent
- ♦ Treasury issues over \$7 trillion per year in over 250 auctions – nearly one every business day – making us unable to move opportunistically and changes in the outstanding portfolio take time.
- ♦ Plans for debt issuance changes are transmitted to the market as transparently as possible.
- ♦ During rapid changes to the economy, such changes may become more pronounced.



# Additional Information

- ◆ Office of Debt Management
  - <http://www.treas.gov/offices/domestic-finance/debt-management/>
- ◆ Bureau of Public Debt
  - <http://www.treasurydirect.gov>
- ◆ Federal Reserve Information
  - <http://www.newyorkfed.org/>
  - <http://www.federalreserve.gov/>

