## Office of Debt Management



Fiscal Year 2012 Q3 Report

## Table of Contents

I. Fiscal
A. Tax Receipts ..... p. 4
B. Monthly Receipt Levels ..... p. 5
C. Outlays ..... p. 6
D. Treasury Net Nonmarketable Borrowing ..... p. 7
E. Cumulative Budget Deficits ..... p. 8
F. Deficit and Borrowing Estimates ..... p. 9
G. Budget Surplus/Deficit ..... p. 10
II. Financing
A. OMBs Projections of Borrowing from the Public ..... p. 12
B. Net Marketable Borrowing On "Auto Pilot" Versus Borrowing Forecasts ..... p. 13
C. Sources of Financing ..... p. 15
III. Portfolio Metrics
A. Weighted Average Maturity of Marketable Debt Outstanding with Projections ..... p. 19
B. Recent and Projected Portfolio Composition ..... p. 20
C. Recent and Projected Maturity Profile ..... p. 22
IV. Demand
A. Summary Statistics of Fiscal Year 2012 Q2 Auctions ..... p. 27
B. Bid-to-Cover Ratios ..... p. 28
C. Investor Class Auction Awards ..... p. 32
D. Foreign Awards at Auction ..... p. 39
E. Primary Dealer Awards at Auction ..... p. 43

## Section I: Fiscal

## Quarterly Tax Receipts



Sept. 2002 yoy change data point excluded from corporate taxes due to $9-11$ impacts on data

## Monthly Receipt Levels

(12-Month Moving Average)


Individual Income Taxes include withheld and non-withheld. Social Insurance Taxes include FICA, SECA, RRTA, UTF Deposits, FUTA and RUIA. Other includes excise taxes, estate and gift taxes, customs duties and miscellaneous receipts.

Fiscal Year-to-Date Levels of Ten Largest Outlays


Treasury Net Nonmarketable Borrowing


Fiscal Quarter

Cumulative Budget Deficits by Fiscal Year


| FY 2012-2014 Deficits and Net Marketable Borrowing |  | In \$ Billions |  |
| :--- | :---: | :---: | :---: |
|  | Primary <br> Dealers |  |  |
| FY 2012 Deficit Estimate | CBO $^{2}$ | OMB $^{3}$ |  |
| FY 2013 Deficit Estimate | 1,166 | 1,171 | 1,211 |
| FY 2014 Deficit Estimate | 951 | 612 | 991 |
| FY 2012 Deficit Range | 805 | 385 | 661 |
| FY 2013 Deficit Range | $1,000-1,280$ |  |  |
| FY 2014 Deficit Range | $700-1,115$ |  |  |
|  | $624-950$ |  | 1,286 |
| FY 2012 Net Marketable Borrowing Estimate |  | 1,170 |  |
| FY 2013 Net Marketable Borrowing Estimate | 984 |  |  |
| FY 2014 Net Marketable Borrowing Estimate | 857 |  |  |
| FY 2012 Net Marketable Borrowing Range | $1,080-1,260$ |  |  |
| FY 2013 Net Marketable Borrowing Range | $700-1,145$ |  |  |
| FY 2014 Net Marketable Borrowing Range | $650-1,200$ |  | Mal-12 |
| Estimates as of: | Jul-12 | Mar-12 |  |

${ }^{1}$ Based on primary dealer feedback on July 23, 2012. Deficit estimates are averages.
${ }^{2}$ CBO's baseline estimate; assumes current law.
${ }^{3}$ Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government"

Budget Surplus/Deficit


OMB's Projection

Section II:
Financing

1789

OMB's Projections of Borrowing from the Public


OMB's projections of borrowing from the public projections are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." Data labels represent the change in debt held by the public in $\$$ billions. Other represents borrowing from the public to provide direct and guaranteed loans, in addition to TARP activity.
*For Fiscal Year 2012, actuals up to 6/30/2012 and Treasury's projections for Q4 as of 7/30/2012.
Data labels represent the annual change in debt held by the public


Portfolio \& SOMA holdings as of $6 / 30 / 2012$ and estimated projections of the Maturity Extension Program. Assumes issuance sizes for Bills, Nominal Coupons and TIPS are unchanged from 6/30/2012 levels, along with SOMA reinvestment. The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. No attempt was made to match future financing needs. OMB's projections of borrowing from the public projections are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US
Government."
*For Fiscal Year 2012, actuals up to 6/30/2012 and Treasury's projections for Q4 as of 7/30/2012.
Data labels represent historical net marketable borrowing and projected net borrowing capacity. See table on the following page for details.

## Historical Net Marketable Borrowing and Projected Net Borrowing Assuming Future Issuance Remains Constant, \$ Billion

| End of Fiscal <br> Year | Bills | $2 / 3 / 5$ | $7 / 10 / 30$ | TIPS | Historical Net Marketable <br> Borrowing/Projected Net <br> Borrowing Capacity | OMB's Projections <br> of Borrowing <br> from the Public |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2008 | 532 | 106 | 105 | 40 | 783 |  |
| 2009 | 503 | 732 | 512 | 38 | 1,786 |  |
| 2010 | $(204)$ | 869 | 782 | 35 | 1,482 |  |
| 2011 | $(311)$ | 576 | 751 | 88 | 1,104 | 1,048 |
| $2012^{*}$ | 72 | 148 | 737 | 91 | 906 | 744 |
| 2013 | $(12)$ | 90 | 720 | 108 | 627 | 1,158 |
| 2014 | 0 | $(8)$ | 669 | 83 | 603 |  |
| 2015 | 0 | $(94)$ | 639 | 82 | 774 | 736 |
| 2016 | 0 | 95 | 500 | 73 | 564 | 696 |
| 2017 | 0 | 87 | 318 | 69 | 487 | 657 |
| 2018 | 0 | 117 | 370 | 78 | 311 | 684 |
| 2019 | 0 | 131 | 282 | 75 | 282 | 699 |
| 2020 | 0 | 32 | 241 | 39 | 172 | 723 |
| 2021 | 0 | 11 | 258 | 13 |  | 752 |
| 2022 | 0 | $(19)$ | 192 | $(2)$ |  |  |

Portfolio \& SOMA holdings as of 6/30/2012 and estimated projections of the Maturity Extension Program. Assumes issuance sizes for Bills, Nominal Coupons and TIPS are unchanged from 6/30/2012 levels, along with SOMA reinvestment. The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. No attempt was made to match future financing needs. OMB's projections of borrowing from the public projections are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government."
*For Fiscal Year 2012, actuals up to 6/30/2012 and Treasury's projections for Q4 as of 7/30/2012.
Data labels represent historical net marketable borrowing and projected net borrowing capacity.

## Sources of Financing in Fiscal Year 2012 Q1

| October-December 2011 |  |  |
| ---: | :---: | :---: |
| Net Funding Need |  |  |
| (282) |  |  |
| Net Bill Issuance | 43 |  |
| Net Coupon Issuance | 267 |  |
|  | 310 |  |
| Subtotal: Net Marketable Borrowing |  |  |
| Plus: Beginning Cash Balance | 58 |  |
| Less: Ending Cash Balance | 86 |  |
| Subtotal: Funding Adding to Build Up of Cash |  | $(28)$ |
| Total: Net Funding | 282 |  |


|  | October-December 2011 <br> Bill Issuance |  |  | Fiscal Year to Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issuance | Gross | Maturing | Net | Gross | Maturing | Net |
| 4-Week | 487 | 474 | 13 | 487 | 474 | 13 |
| 13-Week | 377 | 367 | 10 | 377 | 367 | 10 |
| 26-Week | 351 | 337 | 14 | 351 | 337 | 14 |
| 52-Week | 75 | 69 | 6 | 75 | 69 | 6 |
| CMBs | 10 | 10 | 0 | 10 | 10 | 0 |
| Bill Subtotal | 1,300 | 1,257 | 43 | 1,300 | 1,257 | 43 |


|  | October-December 2011 <br> Coupon Issuance |  | Fiscal Year to Date |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issue | Gross | Maturing | Net | Gross | Maturing | Net |
| 2-Year | 73 | 90 | $(17)$ | 73 | 90 | $(17)$ |
| 3-Year | 100 | 58 | 41 | 100 | 58 | 41 |
| 5-Year | 73 | 33 | 40 | 73 | 33 | 40 |
| 7-Year | 60 | 0 | 60 | 60 | 0 | 60 |
| 10-Year | 69 | 0 | 69 | 69 | 0 | 69 |
| 30-Year | 44 | 0 | 44 | 44 | 0 | 44 |
| 5-Year TIPS | 12 | 0 | 12 | 12 | 0 | 12 |
| 10-Year TIPS | 11 | 0 | 11 | 11 | 0 | 11 |
| 30-Year TIPS | 7 | 0 | 7 | 7 | 0 | 7 |
| Coupon Subtotal | 449 | 182 | 267 | 449 | 182 | 267 |


| Total | 1,749 | 1,439 | 310 | 1,749 | 1,439 | 310 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |

## Sources of Financing in Fiscal Year 2012 Q2



|  | January-March 2012 <br> Bill Issuance |  |  | Fiscal Year to Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issuance | Gross | Maturing | Net | Gross | Maturing | Net |
| 4-Week | 523 | 498 | 25 | 1,009 | 971 | 38 |
| 13-Week | 409 | 377 | 32 | 786 | 744 | 42 |
| 26-Week | 383 | 336 | 47 | 734 | 673 | 61 |
| 52-Week | 77 | 67 | 10 | 152 | 136 | 16 |
| CMBs | 40 | 0 | 40 | 50 | 10 | 40 |
| Bill Subtotal | 1,432 | 1,278 | 154 | 2,731 | 2,534 | 197 |


| Issue | January-March 2012 <br> Coupon Issuance |  |  | Fiscal Year to Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross | Maturing | Net | Gross | Maturing | Net |
| 2-Year | 107 | 135 | (28) | 180 | 226 | (45) |
| 3-Year | 104 | 101 | 4 | 204 | 159 | 45 |
| 5-Year | 107 | 48 | 60 | 180 | 81 | 99 |
| 7-Year | 89 | 0 | 89 | 149 | 0 | 149 |
| 10-Year | 72 | 25 | 47 | 140 | 25 | 115 |
| 30-Year | 46 | 0 | 46 | 89 | 0 | 89 |
| 5-Year TIPS | 0 | 0 | 0 | 12 | 0 | 12 |
| 10-Year TIPS | 28 | 8 | 21 | 40 | 8 | 32 |
| 30-Year TIPS | 9 | 0 | 9 | 16 | 0 | 16 |
| Coupon Subtotal | 563 | 316 | 247 | 1,012 | 498 | 514 |
| Total | 1,995 | 1,594 | 401 | 3,743 | 3,033 | 711 |

## Sources of Financing in Fiscal Year 2012 Q3



| Issuance | April-June 2012 <br> Bill Issuance |  |  | Fiscal Year to Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross | Maturing | Net | Gross | Maturing | Net |
| 4-Week | 451 | 486 | (35) | 1,461 | 1,458 | 3 |
| 13-Week | 392 | 409 | (17) | 1,178 | 1,153 | 25 |
| 26-Week | 359 | 351 | 8 | 1,093 | 1,024 | 69 |
| 52-Week | 102 | 96 | 6 | 254 | 232 | 22 |
| CMBs | 0 | 40 | (40) | 50 | 50 | 0 |
| Bill Subtotal | 1,304 | 1,382 | (78) | 4,036 | 3,917 | 119 |


|  | April-June 2012 <br> Coupon Issuance |  |  | Fiscal Year to Date |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross | Maturing | Net | Gross | Maturing | Net |
| Issue | 107 | 133 | $(27)$ | 287 | 359 | $(72)$ |
| 2-Year | 106 | 112 | $(6)$ | 310 | 271 | 39 |
| 3-Year | 107 | 49 | 58 | 287 | 130 | 157 |
| 5-Year | 88 | 0 | 88 | 238 | 0 | 238 |
| 7-Year | 73 | 0 | 73 | 213 | 25 | 188 |
| 10-Year | 46 | 0 | 46 | 136 | 0 | 136 |
| 30-Year | 16 | 19 | $(3)$ | 28 | 19 | 9 |
| 5-Year TIPS | 13 | 0 | 13 | 53 | 8 | 45 |
| 10-Year TIPS | 7 | 0 | 7 | 23 | 0 | 23 |
| 30-Year TIPS | 764 | 314 | 250 | 1,575 | 812 | 763 |
| Coupon Subtotal | 564 |  |  |  |  |  |


| Total | 1,868 | 1,696 | 172 | 5,611 | 4,729 | 882 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Section III: <br> Portfolio Metrics

Weighted Average Maturity of Marketable Debt Outstanding


Portfolio \& SOMA holdings as of $6 / 30 / 2012$ and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-7-10-$, and 30 -year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury.

Recent and Future Portfolio Composition by Issuance Type, Percent


Portfolio \& SOMA holdings as of $6 / 30 / 2012$ and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-, 7-, 10-$, and 30 -year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. See table on the following page for details.

## Recent and Future Portfolio Composition by Issuance Type, Percent

| End of Fiscal Year | Bills | 2-, 3-, 5-Year <br> Nominal Coupons | 7-, 10-, 30-Year <br> Nominal Coupons | Total Nominal <br> Coupons | TIPS (principal <br> accreted to <br> projection date) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 | $21.3 \%$ | $40.5 \%$ | $29.0 \%$ | $69.5 \%$ | $9.2 \%$ |
| 2007 | $21.6 \%$ | $38.9 \%$ | $29.2 \%$ | $68.1 \%$ | $10.3 \%$ |
| 2008 | $28.5 \%$ | $34.5 \%$ | $26.9 \%$ | $61.4 \%$ | $10.0 \%$ |
| 2009 | $28.5 \%$ | $36.2 \%$ | $27.4 \%$ | $63.6 \%$ | $7.9 \%$ |
| 2010 | $21.1 \%$ | $40.1 \%$ | $31.8 \%$ | $71.9 \%$ | $7.0 \%$ |
| 2011 | $15.4 \%$ | $41.4 \%$ | $35.9 \%$ | $77.3 \%$ | $7.3 \%$ |
| 2012 | $14.5 \%$ | $38.5 \%$ | $39.5 \%$ | $78.0 \%$ | $7.6 \%$ |
| 2013 | $12.9 \%$ | $37.0 \%$ | $42.3 \%$ | $79.3 \%$ | $7.8 \%$ |
| 2014 | $12.1 \%$ | $34.8 \%$ | $45.1 \%$ | $79.8 \%$ | $8.1 \%$ |
| 2015 | $11.4 \%$ | $32.4 \%$ | $47.8 \%$ | $80.2 \%$ | $8.4 \%$ |
| 2016 | $10.8 \%$ | $31.5 \%$ | $49.1 \%$ | $80.5 \%$ | $8.7 \%$ |
| 2017 | $10.3 \%$ | $30.9 \%$ | $49.7 \%$ | $80.6 \%$ | $9.1 \%$ |
| 2018 | $9.8 \%$ | $30.4 \%$ | $50.4 \%$ | $80.8 \%$ | $9.4 \%$ |
| 2019 | $9.3 \%$ | $30.6 \%$ | $50.4 \%$ | $81.0 \%$ | $9.6 \%$ |
| 2020 | $8.9 \%$ | $30.7 \%$ | $50.7 \%$ | $81.4 \%$ | $9.7 \%$ |
| 2021 | $8.6 \%$ | $30.6 \%$ | $51.2 \%$ | $81.8 \%$ | $9.6 \%$ |
| 2022 | $8.2 \%$ | $31.0 \%$ | $51.3 \%$ | $82.4 \%$ | 9.5 |

Portfolio \& SOMA holdings as of 6/30/2012 and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-, 7-, 10-$, and 30 -year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury.

Recent and Future Maturity Profile, \$ Billion


Portfolio \& SOMA holdings as of 6/30/2012 and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-, 7-, 10-$, and 30 -year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. See table on the following page for details.

## Recent and Future Maturity Profile, \$ Billion

| End of Fiscal Year | $<1 \mathrm{yr}$ | [1, 2) | $[2,3)$ | $[3,5)$ | $[5,7)$ | $[7,10)$ | $>=10 \mathrm{yr}$ | Total | $[0,5)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | 1,582 | 664 | 343 | 551 | 276 | 498 | 628 | 4,541 | 3,139 |
| 2008 | 2,151 | 710 | 280 | 657 | 317 | 514 | 690 | 5,319 | 3,798 |
| 2009 | 2,703 | 775 | 666 | 970 | 540 | 690 | 779 | 7,122 | 5,113 |
| 2010 | 2,563 | 1,143 | 872 | 1,309 | 917 | 880 | 953 | 8,637 | 5,887 |
| 2011 | 2,621 | 1,273 | 1,004 | 1,526 | 1,145 | 1,085 | 1,129 | 9,783 | 6,424 |
| 2012 | 2,884 | 1,388 | 1,125 | 1,837 | 1,235 | 1,168 | 1,325 | 10,962 | 7,235 |
| 2013 | 2,966 | 1,592 | 1,225 | 2,105 | 1,496 | 1,272 | 1,519 | 12,175 | 7,889 |
| 2014 | 3,129 | 1,624 | 1,489 | 2,299 | 1,485 | 1,264 | 1,745 | 13,036 | 8,542 |
| 2015 | 3,161 | 1,908 | 1,521 | 2,435 | 1,610 | 1,294 | 1,902 | 13,830 | 9,024 |
| 2016 | 3,343 | 1,979 | 1,712 | 2,558 | 1,649 | 1,311 | 2,093 | 14,645 | 9,592 |
| 2017 | 3,516 | 2,186 | 1,671 | 2,702 | 1,636 | 1,392 | 2,300 | 15,404 | 10,076 |
| 2018 | 3,765 | 2,158 | 1,757 | 2,814 | 1,718 | 1,449 | 2,466 | 16,127 | 10,494 |
| 2019 | 3,695 | 2,289 | 1,951 | 2,825 | 1,856 | 1,598 | 2,660 | 16,874 | 10,759 |
| 2020 | 3,823 | 2,472 | 1,947 | 2,976 | 1,863 | 1,597 | 2,955 | 17,633 | 11,218 |
| 2021 | 4,009 | 2,473 | 2,012 | 3,111 | 1,925 | 1,636 | 3,251 | 18,417 | 11,605 |
| 2022 | 4,010 | 2,593 | 2,218 | 3,239 | 2,064 | 1,569 | 3,536 | 19,229 | 12,060 |

Portfolio \& SOMA holdings as of 6/30/2012 and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-, 7-, 10-$, and $30-$-year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury.

Recent and Future Maturity Profile, Percent


Portfolio \& SOMA holdings as of 6/30/2012 and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-, 7-, 10-$, and 30 -year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. See table on the following page for details.

## Recent and Future Maturity Profile, Percent

| End of Fiscal Year | $<1 \mathrm{yr}$ | $[1,2)$ | $[2,3)$ | $[3,5)$ | $[5,7)$ | $[7,10)$ | $>=10 \mathrm{yr}$ | $[0,3)$ | $[0,5)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2007 | 34.8\% | 14.6\% | 7.5\% | 12.1\% | 6.1\% | 11.0\% | 13.8\% | 57.0\% | 69.1\% |
| 2008 | 40.4\% | 13.3\% | 5.3\% | 12.3\% | 6.0\% | 9.7\% | 13.0\% | 59.1\% | 71.4\% |
| 2009 | 37.9\% | 10.9\% | 9.4\% | 13.6\% | 7.6\% | 9.7\% | 10.9\% | 58.2\% | 71.8\% |
| 2010 | 29.7\% | 13.2\% | 10.1\% | 15.2\% | 10.6\% | 10.2\% | 11.0\% | 53.0\% | 68.2\% |
| 2011 | 26.8\% | 13.0\% | 10.3\% | 15.6\% | 11.7\% | 11.1\% | 11.5\% | 50.1\% | 65.7\% |
| 2012 | 26.3\% | 12.7\% | 10.3\% | 16.8\% | 11.3\% | 10.7\% | 12.1\% | 49.2\% | 66.0\% |
| 2013 | 24.4\% | 13.1\% | 10.1\% | 17.3\% | 12.3\% | 10.4\% | 12.5\% | 47.5\% | 64.8\% |
| 2014 | 24.0\% | 12.5\% | 11.4\% | 17.6\% | 11.4\% | 9.7\% | 13.4\% | 47.9\% | 65.5\% |
| 2015 | 22.9\% | 13.8\% | 11.0\% | 17.6\% | 11.6\% | 9.4\% | 13.8\% | 47.6\% | 65.3\% |
| 2016 | 22.8\% | 13.5\% | 11.7\% | 17.5\% | 11.3\% | 8.9\% | 14.3\% | 48.0\% | 65.5\% |
| 2017 | 22.8\% | 14.2\% | 10.9\% | 17.5\% | 10.6\% | 9.0\% | 14.9\% | 47.9\% | 65.4\% |
| 2018 | 23.3\% | 13.4\% | 10.9\% | 17.5\% | 10.7\% | 9.0\% | 15.3\% | 47.6\% | 65.1\% |
| 2019 | 21.9\% | 13.6\% | 11.6\% | 16.7\% | 11.0\% | 9.5\% | 15.8\% | 47.0\% | 63.8\% |
| 2020 | 21.7\% | 14.0\% | 11.0\% | 16.9\% | 10.6\% | 9.1\% | 16.8\% | 46.7\% | 63.6\% |
| 2021 | 21.8\% | 13.4\% | 10.9\% | 16.9\% | 10.5\% | 8.9\% | 17.7\% | 46.1\% | 63.0\% |
| 2022 | 20.9\% | 13.5\% | 11.5\% | 16.8\% | 10.7\% | 8.2\% | 18.4\% | 45.9\% | 62.7\% |

Portfolio \& SOMA holdings as of 6/30/2012 and estimated projections of the Maturity Extension Program. To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities ( $2-, 3-, 5-, 7-, 10-$, and $30-$-year) were adjusted by the same percentage. OMB's projections of borrowing from the public are from Table S-5 and S-14 of the "Fiscal Year 2013 Mid-Session Review Budget of the US Government." The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury.

## Section IV: Demand

1789

## Summary Statistics for Fiscal Year 2012 Q3 Auctions

| Security Type | Term | Stop Out <br> Rate (\%) | Bid-to-Cover Ratio | Competitive Awards (\$ bn) | \% Primary Dealer | \% Direct | \% Indirect | Non-Competitive Awards (\$ bn) | SOMA Add Ons (\$ bn) | 10-Yr Equivalent (\$ bn) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bill | 4-Week | 0.064 | 4.7 | 386.0 | 69.1\% | 10.1\% | 20.8\% | 3.3 | 61.2 | 3.29 |
| Bill | 13-Week | 0.086 | 4.6 | 378.0 | 68.5\% | 7.4\% | 24.1\% | 9.8 | 0.0 | 10.67 |
| Bill | 26-Week | 0.142 | 4.7 | 344.1 | 66.0\% | 7.1\% | 26.9\% | 8.1 | 0.0 | 19.40 |
| Bill | 52-Week | 0.190 | 4.5 | 101.1 | 69.8\% | 12.0\% | 18.2\% | 0.6 | 0.0 | 11.20 |
| Coupon | 2-Year | 0.294 | 3.8 | 104.4 | 59.3\% | 8.2\% | 32.4\% | 0.5 | 1.3 | 22.89 |
| Coupon | 3-Year | 0.392 | 3.5 | 95.9 | 55.4\% | 10.4\% | 34.2\% | 0.1 | 10.1 | 31.47 |
| Coupon | 5-Year | 0.796 | 2.9 | 104.9 | 49.4\% | 8.9\% | 41.8\% | 0.1 | 1.3 | 56.43 |
| Coupon | 7-Year | 1.208 | 2.8 | 86.9 | 45.7\% | 13.3\% | 41.0\% | 0.0 | 1.1 | 63.93 |
| Coupon | 10-Year | 1.841 | 3.0 | 66.0 | 44.4\% | 15.9\% | 39.7\% | 0.0 | 6.8 | 66.01 |
| Coupon | 30-Year | 3.019 | 2.6 | 42.0 | 50.1\% | 17.5\% | 32.4\% | 0.0 | 4.3 | 93.49 |
| TIPS | 5-Year | (1.080) | 2.6 | 15.9 | 54.9\% | 9.1\% | 36.0\% | 0.1 | 0.4 | 9.44 |
| TIPS | 10-Year | (0.391) | 3.0 | 13.0 | 34.5\% | 14.8\% | 50.7\% | 0.0 | 0.0 | 14.36 |
| TIPS | 30-Year | 0.520 | 2.6 | 7.0 | 37.6\% | 28.1\% | 34.3\% | 0.0 | 0.0 | 21.65 |


| Total Bills | 0.104 | 4.6 | 1,209.2 | 68.1\% | 8.5\% | 23.4\% | 21.7 | 61.2 | 44.57 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Coupons | 1.010 | 3.2 | 499.9 | 51.4\% | 11.4\% | 37.2\% | 0.8 | 24.8 | 334.22 |
| Total TIPS | (0.072) | 2.9 | 20.0 | 35.6\% | 19.5\% | 44.9\% | 0.0 | 0.0 | 45.45 |

Bid-to-Cover Ratios for Treasury Bills


Bid-to-Cover Ratios for 2-, 3-, and 5-Year Nominal Securities (6-Month Moving Average)


Bid-to-Cover Ratios for 7-, 10-, and 30-Year Nominal Securities (6-Month Moving Average)


Bid-to-Cover Ratios for TIPS


## Investor Class Auction Awards: Bills Fiscal Year 2012 Q3



## Change in Demand Over the Last Year in Bills, Auction Awards by Investor Class



Excludes SOMA add-ons. The "Other" category includes categories that are each less than 2\%, which include Depository Institutions, Individuals, 33 Pension and Insurance. These results may include seasonal effects.

Investor Class Auction Awards: 2-, 3-, and 5-Year Nominal Securities Fiscal Year 2012 Q3

Investor Class Auction Awards: 7-, 10-, and 30-Year Nominal Securities Fiscal Year 2012 Q3


## Change in Demand Over the Last Year in 2-, 3-, 5-Year Nominal Securities, Auction Awards by Investor Class



Excludes SOMA add-ons. The "Other" category includes categories that are each less than 2\%, which include Depository Institutions, Individuals, 35 Pension and Insurance. These results may include seasonal effects.

## Change in Demand Over the Last Year in 7-, 10-, 30-Year Nominal Securities, Auction Awards by Investor Class



Excludes SOMA add-ons. The "Other" category includes categories that are each less than 2\%, which include Depository Institutions, Individuals, 36 Pension and Insurance. These results may include seasonal effects.

## Investor Class Auction Awards: TIPS Fiscal Year 2012 Q3



Excludes SOMA add-ons. The "Other" category includes categories that are each less than $2 \%$, which include Depository Institutions, Individuals, 37 Pension and Insurance.

Change in Demand Over the Last Year in TIPS, Auction Awards by Investor Class


Excludes SOMA add-ons. The "Other" category includes categories that are each less than 2\%, which include Depository Institutions, Individuals, 38 Pension and Insurance. These results may include seasonal effects.

Total Foreign Awards of Treasuries at Auction, \$ Billion


Foreign Awards of Bills at Auction, Percent


Foreign Awards of Nominal Coupons at Auction, Percent


Foreign Awards of TIPS at Auction, Percent


Excludes SOMA add-ons. Foreign includes both private sector and official institutions.

Primary Dealer Awards at Auction, Percent


## Appendix

| Bill Issues |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issue | Settle Date | Stop Out <br> Rate (\%) | Bid-to-Cover Ratio | Competitive Awards (\$ bn) | \% Primary Dealer | \% Direct | \% Indirect | Non-Competitive Awards (\$ bn) | SOMA Add Ons (\$ bn) | 10-Yr Equivalent (\$ bn) |
| 4-Week | 04/03/12 | 0.055 | 4.75 | 29.72 | 55.9\% | 7.7\% | 36.3\% | 0.28 | 5.94 | 0.26 |
| 4-Week | 04/10/12 | 0.080 | 4.71 | 29.78 | 56.9\% | 12.2\% | 30.8\% | 0.22 | 3.78 | 0.26 |
| 4-Week | 04/17/12 | 0.065 | 4.88 | 29.76 | 60.3\% | 13.9\% | 25.8\% | 0.25 | 6.29 | 0.26 |
| 4-Week | 04/24/12 | 0.075 | 4.44 | 29.51 | 70.1\% | 10.6\% | 19.3\% | 0.23 | 2.42 | 0.26 |
| 4-Week | 05/01/12 | 0.080 | 4.88 | 29.68 | 68.1\% | 11.7\% | 20.2\% | 0.27 | 5.94 | 0.26 |
| 4-Week | 05/08/12 | 0.075 | 5.05 | 29.75 | 48.7\% | 14.5\% | 36.7\% | 0.20 | 3.78 | 0.26 |
| 4-Week | 05/15/12 | 0.075 | 4.63 | 29.76 | 77.2\% | 7.8\% | 15.1\% | 0.24 | 6.29 | 0.25 |
| 4-Week | 05/22/12 | 0.065 | 4.95 | 29.72 | 78.7\% | 8.0\% | 13.3\% | 0.23 | 2.42 | 0.25 |
| 4-Week | 05/30/12 | 0.060 | 4.77 | 29.73 | 69.6\% | 8.7\% | 21.7\% | 0.27 | 5.94 | 0.25 |
| 4-Week | 06/05/12 | 0.040 | 4.79 | 29.72 | 73.6\% | 9.8\% | 16.7\% | 0.28 | 3.78 | 0.25 |
| 4-Week | 06/12/12 | 0.055 | 4.53 | 29.71 | 82.5\% | 8.0\% | 9.5\% | 0.29 | 6.29 | 0.25 |
| 4-Week | 06/19/12 | 0.050 | 4.54 | 29.74 | 78.7\% | 8.9\% | 12.4\% | 0.26 | 2.42 | 0.25 |
| 4-Week | 06/26/12 | 0.060 | 4.43 | 29.44 | 78.1\% | 9.4\% | 12.6\% | 0.27 | 5.94 | 0.25 |
| 13-Week | 04/02/12 | 0.075 | 4.57 | 29.98 | 58.5\% | 7.5\% | 34.0\% | 0.76 | 0.00 | 0.87 |
| 13-Week | 04/09/12 | 0.085 | 4.20 | 30.18 | 60.8\% | 8.3\% | 30.9\% | 0.67 | 0.00 | 0.87 |
| 13-Week | 04/16/12 | 0.080 | 4.50 | 29.15 | 61.2\% | 9.8\% | 29.0\% | 0.75 | 0.00 | 0.83 |
| 13-Week | 04/23/12 | 0.080 | 4.72 | 28.25 | 63.7\% | 7.4\% | 28.9\% | 0.80 | 0.00 | 0.81 |
| 13-Week | 04/30/12 | 0.095 | 4.60 | 28.98 | 68.0\% | 5.4\% | 26.6\% | 0.72 | 0.00 | 0.83 |
| 13-Week | 05/07/12 | 0.090 | 4.56 | 28.94 | 74.1\% | 9.5\% | 16.4\% | 0.76 | 0.00 | 0.82 |
| 13-Week | 05/14/12 | 0.095 | 4.66 | 28.94 | 73.3\% | 8.0\% | 18.6\% | 0.76 | 0.00 | 0.80 |
| 13-Week | 05/21/12 | 0.085 | 4.61 | 29.19 | 77.8\% | 6.5\% | 15.7\% | 0.71 | 0.00 | 0.82 |
| 13-Week | 05/29/12 | 0.085 | 4.52 | 28.61 | 69.5\% | 6.6\% | 23.9\% | 0.73 | 0.00 | 0.79 |
| 13-Week | 06/04/12 | 0.075 | 4.53 | 28.97 | 70.6\% | 7.5\% | 22.0\% | 0.75 | 0.00 | 0.81 |
| 13-Week | 06/11/12 | 0.085 | 4.79 | 29.21 | 70.6\% | 6.6\% | 22.8\% | 0.79 | 0.00 | 0.82 |
| 13-Week | 06/18/12 | 0.095 | 4.43 | 29.09 | 72.7\% | 5.8\% | 21.4\% | 0.76 | 0.00 | 0.81 |
| 13-Week | 06/25/12 | 0.095 | 4.50 | 28.50 | 70.4\% | 6.9\% | 22.7\% | 0.81 | 0.00 | 0.79 |
| 26-Week | 04/02/12 | 0.140 | 4.58 | 28.16 | 50.0\% | 8.1\% | 41.9\% | 0.64 | 0.00 | 1.64 |
| 26-Week | 04/09/12 | 0.150 | 4.37 | 27.83 | 50.6\% | 7.3\% | 42.1\% | 0.65 | 0.00 | 1.60 |
| 26-Week | 04/16/12 | 0.135 | 4.44 | 26.66 | 70.3\% | 8.3\% | 21.4\% | 0.71 | 0.00 | 1.53 |
| 26-Week | 04/23/12 | 0.130 | 4.48 | 26.44 | 66.3\% | 7.6\% | 26.1\% | 0.60 | 0.00 | 1.51 |
| 26-Week | 04/30/12 | 0.145 | 4.75 | 27.04 | 70.6\% | 9.3\% | 20.1\% | 0.56 | 0.00 | 1.54 |
| 26-Week | 05/07/12 | 0.145 | 4.63 | 26.83 | 71.2\% | 7.8\% | 21.0\% | 0.62 | 0.00 | 1.52 |
| 26-Week | 05/14/12 | 0.145 | 5.17 | 25.96 | 68.5\% | 7.5\% | 23.9\% | 0.64 | 0.00 | 1.44 |
| 26-Week | 05/21/12 | 0.140 | 4.97 | 26.00 | 73.5\% | 6.1\% | 20.4\% | 0.60 | 0.00 | 1.47 |
| 26-Week | 05/29/12 | 0.140 | 4.58 | 25.43 | 69.2\% | 5.7\% | 25.0\% | 0.62 | 0.00 | 1.40 |
| 26-Week | 06/04/12 | 0.130 | 4.73 | 25.92 | 75.7\% | 6.0\% | 18.4\% | 0.65 | 0.00 | 1.44 |
| 26-Week | 06/11/12 | 0.140 | 5.18 | 26.07 | 60.3\% | 7.2\% | 32.5\% | 0.63 | 0.00 | 1.45 |
| 26-Week | 06/18/12 | 0.150 | 4.50 | 26.28 | 69.2\% | 4.6\% | 26.2\% | 0.62 | 0.00 | 1.46 |
| 26-Week | 06/25/12 | 0.150 | 4.75 | 25.50 | 64.9\% | 6.4\% | 28.6\% | 0.60 | 0.00 | 1.41 |
| 52-Week | 04/03/12 | 0.185 | 4.31 | 25.76 | 71.6\% | 9.5\% | 18.9\% | 0.14 | 0.00 | 2.94 |
| 52-Week | 05/01/12 | 0.185 | 4.56 | 25.89 | 70.6\% | 7.5\% | 21.9\% | 0.11 | 0.00 | 2.90 |
| 52-Week | 05/30/12 | 0.185 | 5.07 | 24.67 | 63.5\% | 18.8\% | 17.7\% | 0.16 | 0.00 | 2.66 |
| 52-Week | 06/26/12 | 0.205 | 4.15 | 24.76 | 73.4\% | 12.5\% | 14.2\% | 0.14 | 0.00 | 2.69 |

Stop Out Rate, Bid-to-Cover Ratio, \% Primary Dealer, \% Direct and \% Indirect are weighted averages of Competitive Awards. 10-Yr equivalent is approximated using prices at settlement and includes both Competitive and Non-Competitive Awards.

| Issue | Settle Date | Nominal Coupon Securities |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Stop Out Rate (\%) | Bid-to-Cover Ratio | Competitive Awards (\$ bn) | \% Primary Dealer | \% Direct | \% Indirect | Non-Competitive Awards (\$ bn) | SOMA Add Ons (\$ bn) | 10-Yr Equivalent (\$ bn) |
| 2-Year | 04/24/12 | 0.270 | 3.76 | 34.84 | 60.0\% | 7.8\% | 32.1\% | 0.16 | 0.94 | 7.81 |
| 2-Year | 05/22/12 | 0.300 | 3.95 | 34.81 | 57.5\% | 9.0\% | 33.5\% | 0.19 | 0.00 | 7.52 |
| 2-Year | 06/26/12 | 0.313 | 3.62 | 34.72 | 60.4\% | 7.9\% | 31.7\% | 0.18 | 0.36 | 7.56 |
| 3-Year | 04/10/12 | 0.427 | 3.36 | 31.96 | 52.2\% | 7.8\% | 40.0\% | 0.04 | 5.82 | 10.69 |
| 3-Year | 05/08/12 | 0.362 | 3.65 | 31.96 | 53.1\% | 11.2\% | 35.7\% | 0.04 | 2.00 | 10.44 |
| 3-Year | 06/12/12 | 0.387 | 3.53 | 31.97 | 60.9\% | 12.0\% | 27.0\% | 0.03 | 2.26 | 10.34 |
| 5-Year | 04/25/12 | 0.887 | 3.09 | 34.98 | 43.1\% | 9.4\% | 47.5\% | 0.02 | 0.94 | 19.20 |
| 5-Year | 05/23/12 | 0.748 | 2.99 | 34.93 | 50.9\% | 6.5\% | 42.6\% | 0.05 | 0.00 | 18.50 |
| 5-Year | 06/27/12 | 0.752 | 2.61 | 34.95 | 54.1\% | 10.7\% | 35.1\% | 0.03 | 0.36 | 18.73 |
| 7-Year | 04/26/12 | 1.347 | 2.83 | 28.96 | 44.1\% | 17.6\% | 38.2\% | 0.01 | 0.78 | 21.57 |
| 7-Year | 05/24/12 | 1.203 | 2.80 | 28.97 | 41.6\% | 15.7\% | 42.7\% | 0.01 | 0.00 | 21.14 |
| 7-Year | 06/28/12 | 1.075 | 2.64 | 28.97 | 51.5\% | 6.5\% | 42.0\% | 0.01 | 0.30 | 21.21 |
| 10-Year | 04/11/12 | 2.043 | 3.08 | 20.99 | 50.5\% | 11.0\% | 38.5\% | 0.01 | 3.82 | 21.00 |
| 10-Year | 05/09/12 | 1.855 | 2.90 | 23.98 | 45.5\% | 15.8\% | 38.7\% | 0.02 | 1.50 | 24.00 |
| 10-Year | 06/13/12 | 1.622 | 3.06 | 20.99 | 37.2\% | 20.8\% | 42.0\% | 0.01 | 1.48 | 21.00 |
| 30-Year | 04/12/12 | 3.230 | 2.76 | 12.99 | 55.9\% | 13.4\% | 30.7\% | 0.01 | 2.37 | 28.16 |
| 30-Year | 05/10/12 | 3.090 | 2.73 | 15.98 | 50.8\% | 15.4\% | 33.8\% | 0.02 | 1.00 | 35.29 |
| 30-Year | 06/14/12 | 2.720 | 2.40 | 12.99 | 43.5\% | 24.0\% | 32.5\% | 0.01 | 0.92 | 30.04 |


| TIPS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issue | Settle Date | Stop Out <br> Rate (\%) | Bid-to-Cover Ratio | Competitive <br> Awards (\$ bn) | \% Primary <br> Dealer | \% Direct | \% Indirect | Non-Competitive Awards (\$ bn) | SOMA Add Ons (\$ bn) | 10-Yr Equivalent (\$ bn) |
| 5-Year | 04/19/12 | (1.080) | 2.58 | 15.88 | 54.9\% | 9.1\% | 36.0\% | 0.12 | 0.43 | 9.44 |
| 10-Year | 05/17/12 | (0.391) | 3.01 | 12.98 | 34.5\% | 14.8\% | 50.7\% | 0.02 | 0.00 | 14.36 |
| 30-Year | 06/21/12 | 0.520 | 2.64 | 6.99 | 37.6\% | 28.1\% | 34.3\% | 0.01 | 0.00 | 21.65 |

Stop Out Rate, Bid-to-Cover Ratio, \% Primary Dealer, \% Direct and \% Indirect are weighted averages of Competitive Awards. 10-Yr equivalent is approximated using prices at settlement and includes both Competitive and Non-Competitive Awards. For TIPS 10-Yr equivalent, a constant auction BEI is used as the inflation assumption.


## U.S. Treasury Borrowing Advisory Committee Charge \#1

## August 2012

TBAC Charge \#2 Presentation to the U.S. Treasury: The Federal Reserve's Maturity Extension Program (MEP) has a medium-term impact on Treasury's borrowing needs. Please discuss how Treasury should address the financing shortfall created by MEP.

## September 21, 2011: Fed announces its first Maturity Extension Program (MEP1)

"The Committee intends to purchase, by the end of June 2012, \$400 billion of Treasury securities with remaining maturities of 6 years to 30 years and to sell an equal amount of Treasury securities with remaining maturities of 3 years or less."

September 21, 2011 FOMC Statement

## June 20, 2012: Fed announces an extension of its Maturity Extension Program (MEP2)

"The Federal Open Market Committee (FOMC) directed the Open Market Trading Desk (the Desk) at the Federal Reserve Bank of New York to continue through the end of the year its program to extend the average maturity of the Federal Reserve's holdings of Treasury securities...The continuation of the maturity extension program will proceed at the current pace and result in the purchase, as well as the sale and redemption, of about $\$ 267$ billion in Treasury securities by the end of 2012...
Once the maturity extension program is completed, the Federal Reserve will hold almost no securities maturing through January 2016."

June 20, 2012 New York Fed Operating Statement

Fed MEP Sales Raise the Maturing Stock of Debt Held By Private Investors. In the Absence of Fed Add-ons, Treasury Must Issue More Debt to the Public to Raise the Same Amount of Cash

Maturity Distribution of MEP Sales, by Fiscal Year
(i.e. the Amount of Debt That Would Have Been Issued to the Fed via Add-ons)


## MEP1 Lowered Borrowing Capacity As Projected Borrowing Needs Increased. As a Result, Treasury Went From Being Overfunded To Facing Financing Shortfalls



Overfunded (+) vs. Underfunded (-)

|  | Pre-MEP | Post-MEP1 |
| :--- | :---: | :---: |
| FY2012 | $\$ 72$ | $-\$ 372$ |
| FY2013 | $\$ 260$ | $-\$ 133$ |
| FY2014 | $\$ 345$ | $-\$ 1$ |
| FY2015 | $\$ 103$ | $-\$ 28$ |
| FY2016 | $-\$ 30$ | $-\$ 84$ |

- Prior to MEP, Treasury faced a modest overfunding in FY 2012 and significant overfunding in FY 2013 and FY 2014, which would likely have led to cutbacks in coupon auction sizes
- As a result of MEP1 and an upward revision to OMB's projected borrowing need (reflecting in part stimulus proposed in the President's American Jobs Act), debt managers faced a significant financing shortfall in FY 2012 and continued underfunding in FY 2013-2016.


## Given a Projected Financing Shortfall in FY 2012, No Coupon Auction Sizes Were Cut This Year. To Close the Funding Gap, T-bill Issuance Increased.


${ }^{1}$ The American Jobs Act did not win Congressional approval. Thus, actual borrowing needs in FY 2012 proved lower than the $\$ 1.405$ trillion projected by OMB in February. In this table, OMB's projected borrowing need for FY 2012 is based on actual results from October 2011 thru June 2012, and Treasury's July-September borrowing forecast as of April 30, 2012. For FY 2013-FY2016, projected borrowing from the public is from Table S-15 of February 13, 2012, "Fiscal Year 2012 Budget of the US Government"
${ }^{2}$ On July 26, 2012, Treasury announced increases in the weekly 3-month and 6-month T-bill auction sizes. In this table, 4-week T-bill auction sizes are forecast to rise to $\$ 40$ billion in September, while 3-month and 6-month T-bill auction sizes are projected to increase in early August to $\$ 34$ billion and $\$ 30$ billion, respectively, and then remain steady through September 30, 2012. Under this scenario, net borrowing in the T-bill sector is increased sufficiently to close a projected FY 2012 financing gap of roughly $\$ 100$ billion, based on revised OMB borrowing needs.
${ }^{3}$ Borrowing capacity is calculated assuming the Fed sells all of its Treasury holdings maturing through January 31, 2016 and issuance sizes for nominal coupons and TIPS are unchanged from 6/30/2012 levels. Bill issuance is increased as noted in FY 2012 to close the financing gap and then held steady at 9/30/2012 levels.

However, Treasury Still Faces Funding "Shortfalls" in FY 2013 Thru FY 2016 as a Result of MEP1 and MEP2. How Should This Gap be Addressed?

| Funding <br> Post-MEP1 \& MEP2 |  |
| :--- | :---: |

Projected Net Borrowing (Assuming Future Issuance Remains Constant) and Funding Shortfall Post-MEP1 and MEP2


Borrowing capacity is calculated assuming the Fed sells all of its Treasury holdings maturing through January 31, 2016 and issuance sizes for bills, nominal coupons, and TIPS are unchanged from 6/30/2012 levels. Funding shortfall is the difference between borrowing capacity and projected borrowing from the public. The projected borrowing for FY 2012 is based on actual results from October 2011 thru June 2012, and Treasury's July-September borrowing forecast as of April 30, 2012. For FY 2013-FY2016, projected borrowing from the public is from Table S-15 of February 13, 2012, "Fiscal Year 2012 Budget of the US Government"

Treasury has a Number of Options for Increasing Issuance to Meet Funding Needs in the Coming Four Years. Here are the Most Attractive and Least Disruptive that are Previewed in this Presentation:

- A 5.5\%, pro-rata increase in T-bill auction sizes in each of the next four fiscal years (rounded to the nearest \$1bln)
- A 6\% pro-rata increase in coupon auction beginning FY 2013 (rounded to the nearest \$1bn)
- New issuance of a 2yr FRN at \$10bn/month in FY 2013 and FY 2014, bumping up to \$20bn/month in fiscal years 2015 and 2016
- New issuance of a 5yr FRN at \$10bn/month over the next four fiscal years
- New issuance of a $10 y r$ FRN at $\$ 10 b n / m o n t h ~ o v e r ~ t h e ~ n e x t ~ f o u r ~ f i s c a l ~ y e a r s ~$

Each Funding Option will Alter the Path of the Weighted Average Maturity (WAM) of Outstanding Treasury debt


Path of the Weighted Average Maturity (WAM) of Outstanding Treasury Debt if 2 y , 5 y , or 10 y FRNs are Issued


## Summary of Funding Scenarios and WAM impact

| Fiscal Year | WAM - A pro-rata $5.5 \%$ increase in T bill issuance in each of the next four fiscal years | WAM - A pro-rata 6\% increase in Coupon issuance beginning FY 2013 | WAM - Launching \$10bn of a new monthly 2yr FRN beginning FY 2013, upsizing to \$20bn/month in FY 2015 | WAM - Launching \$10bn of a new monthly 5yr FRN beginning FY 2013 | WAM FY 2012 plus 10y WAM - <br> Launching \$10bn of a new monthly $10 y r$ FRN beginning FY 2013 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sep-12 | 64.5 | 64.5 | 64.5 | 64.5 | 64.5 |
| Sep-13 | 65.6 | 66.3 | 65.6 | 66.0 | 66.6 |
| Sep-14 | 66.3 | 67.5 | 66.2 | 66.9 | 68.0 |
| Sep-15 | 66.7 | 68.4 | 66.7 | 67.5 | 68.9 |
| Sep-16 | 67.5 | 69.7 | 67.5 | 68.3 | 70.2 |

## The Pros and Cons Associated with Each Change in Treasury's Issuance Profile

A pro-rata 5.5\% increase in T-bill issuance in each of the next four fiscal years

- Currently, T-Bills represent 15.2\% of marketable borrowing, well below the $23.1 \% 15$-year average. There is room to add more T-Bills.
- Advantageous funding cost in the current steep yield curve environment.
- Flexible vehicle for short term swings in funding needs, as evidenced by the way T-Bills filled a sudden funding gap in FY 2008 and $F Y 2012$.
- Heightens Treasury's rollover risk.
- Increasing T-Bills would slow the rise in the average maturity of Treasury debt outstanding (WAM).
- Bumping up T-Bills by $5.5 \%$ per fiscal year will lead to some large T-Bill auctions in the out-years, such as \$50bn 4-week Bill auctions in FY 2016.


## A pro-rata 6\% increase in Coupon issuance beginning FY 2013

- Would reduce Treasury's rollover risk and further extend the WAM in outstanding Treasury debt, but at a higher funding cost to Treasury.
- Relatively less flexible to the lumpiness of FY funding needs in the years ahead. Balance can be made up in T-Bills.
- Long end coupon issuance could temper the impact of MEP1 and MEP2, countering the Fed's efforts to remove the stock of Treasury supply and long end duration from the market. By the end of MEP2, the Fed would have removed roughly $\$ 750 \mathrm{bn}$ in 10yr duration equivalents from the market. Increasing coupon auction sizes by $6 \%$ would add an additional $\sim \$ 160$ bn in 10-year equivalent duration to coupon supply in each fiscal year. Without the Fed's ongoing support, bigger auction sizes could eventually be problematic for the Treasury auction process.


## Launching a new FRN program at \$10bn/month

- FRN issuance should expand Treasury's investor base, reducing the risk of "crowding out" other Treasury buyers.
- Regulatory and accounting changes (Basel III, FASB,etc) create potentially significant demand for FRN's from financial institutions. There is also increasing institutional and retail investor interest in FRN's. Additionally, FRN's would likely benefit from increasing demand if rates trend higher or if inflationary expectations rise.
- Attractive funding source for Treasury, depending on the slope of the curve and the reset frequency.
- A $2 y r$ final maturity FRN would slow the rise in outstanding Treasury WAM, a 10yr final would accelerate the rise in WAM and a 5yr final would split the difference.


## Treasury Borrowing Advisory Committee

TBAC Charge \#3 Presentation to the U.S. Treasury: US Government issuance of direct loans has grown in recent years, particularly following the discontinuation of the guaranteed student loan program in 2010. What approaches should Treasury consider to minimize cost and optimize composition of the net new issuance that finances these assets going forward?

July 31, 2012

## Table of Contents

- Executive Summary
- Federal Student Loan Program Description
- Student Loan Financing Activity
- Loan Performance
- Budget Implications of Direct Federal Student Lending
- Hypothetical Cash Flow Modeling and Funding Profiles
- Liability Management Considerations


## Executive Summary

- The Student Aid and Fiscal Responsibility Act (SAFRA) of 2010 ceased the origination of federal student loans by private lenders, and as of July 1, 2010, all federal student loans are made directly by the Department of Education and funded by the U.S. Treasury Department. Newly originated federal student loans since July 1, 2006 are fixed rate loans.
- While data sources are inconsistent, the volume of student loans has increased substantially to at least $\$ 900$ billion, making student loans the second largest form of consumer debt, ahead of credit cards and auto loans, trailing only mortgages. The federal government owns or guarantees approximately $85 \%$ of student loans outstanding.
- As a result of this shift, the liability management task of Treasury has a new expanding dimension, moving from a focus on financing the deficit, toward an increasing share of overall issuance supporting the funding needs of financial assets owned by Treasury, some purchased during the financial crisis, but future growth primarily driven by direct student lending.
- There are a number of different student loan programs with varied repayment options available to borrowers, and the characteristics of each creates a wide array of potential scenarios to be considered in determining an optimal funding strategy.


## Executive Summary (continued)

- An important consideration is that the credit quality of the loans is significantly enhanced by the fact that they cannot be charged off in bankruptcy in almost all cases and that the consequences of default include garnishment of wages, tax refunds, and other benefits.
- Additionally, the issuance of student loans is likely to be pro-cyclical to existing issuance, meaning that Treasury funding needs will increase as the economy weakens because of an increase in delayed cash flows from deferment, forbearance, and defaults and potentially higher college enrollment, just as falling tax receipts and potentially higher federal spending impacts funding needs from an expanding deficit. Because of the credit terms of these loans, however, this may actually provide attractive liability management options to Treasury.
- While this presentation will attempt to identify important characteristics of the basic features of some of the more common loans offered directly by the federal government, clearly a more exhaustive analysis, including the collection and availability of important data about the performance and borrower trends is needed to complete a full assessment of the funding strategy for these loan programs.


## Federal Student Loan Program Description

## Federal Student Loan Program History




Direct Loan Program
(FDLP - William D Ford Federal Direct Loan Program)
-Still active


Started in 1993 and effective July 2010, FDLP provides bulk of the student loan funding. U.S. Department of Education extends loans based on funding from U.S. Treasury. I

## Four Types of Direct Student Loans:

1) Subsidized Stafford Loans: loans made to eligible undergraduate students who demonstrate financial need
2) Unsubsidized Stafford Loans: loans made to eligible undergraduate and graduate students, regardless of financial need
3) Federal PLUS Loans: loans made to graduate or professional students and parents of dependent undergraduate students
4) Federal Consolidation Loans: combines an individual's eligible federal student loans into a single loan with a single loan servicer

## Federal Student Loan Program: Borrower Interest Rates

| Type of Loan | Loans made on or after Jul. 1, 1995 | Loans made on or after Oct. 1, 1998 | Loans made on or after Jul. 1, 2006 |
| :---: | :---: | :---: | :---: |
| Stafford and Unsubsidized Stafford | 91-day Treasury bill rate $+2.5 \%$, during in-school, grace, or deferment periods, but Treasury bill $+3.1 \%$ during repayment; capped at 8.25\% | 91-day Treasury bill rate $+1.7 \%$, during in-school, grace, or deferment periods, but Treasurybill +2.3\% during repayment; not to exceed 8.25\% | Fixed rate of 6.8\%. Stafford loans reduced: $6.0 \%--2008-2009$ <br> 5.6\%--2009-2010 <br> 4.5\%--2010-2011 <br> 3.4\%--2012-2013 (Subsidized) <br> 6.8\%--2012-2013 (Unsubsidized) ${ }^{1}$ |
| PLUS | Was 52-week Treasury bill rate $+3.1 \%$, not to exceed 9\%. As of July 1, 2001 converted to 1-year constant maturity $+3.1 \%$, not to exceed $9 \%$ | 91-day Treasury bill rate $+3.1 \%$, not to exceed 9\% | Fixed rate of $7.9 \%$ for Direct PLUS; increased to 8.5\% under HERA for FFEL PLUS |
| FFEL Consolidation Loans ${ }^{2}$ | Weighted average of the interest rates on the loans consolidated, rounded up to the nearest whole percent | Weighted average of the interest rates on the loans consolidated, rounded up to the nearest oneeighth of one percent, not to exceed 8.25\% | Weighted average of the interest rates on the loans consolidated, rounded up to the nearest one-eighth of one percent, not to exceed 8.25\% |
| Direct Consolidation Loans-- <br> Stafford and Unsubsidized Stafford | 91-day Treasury bill rate $+2.5 \%$, during in-school, grace, or deferment periods, but Treasury bill +3.1\% during repayment; capped at 8.25\% | 91-day Treasury bill rate $+2.3 \%$, not to exceed $8.25 \%$ for applications received Oct. 1, 1998 through Jan. 31, 1999; Weighted avg. basis, as above, thereafter | Weighted avg. basis, as above |
| Direct PLUS Consolidation | Was 52-week Treasury bill rate $+3.1 \%$, not to exceed $9 \%$. As of Jul. 1, 2001 converted to 1-year constant maturity $+3.1 \%$, not to exceed $9 \%$ | Same as Direct Consolidation, above, for Stafford and Unsubsidized Stafford loans | Same as Direct Consolidation, above, for Stafford and Unsubsidized Stafford loans |

[^0] eliminated new FFEL Loans as of Jul.1, 2010.
Source: U.S. Department of Education Fiscal Year 2013 Budget; Studentaid.ed.gov

## William D. Ford Direct Loan Program: Repayment Plans

| Repayment Plan | Eligible Loans | Monthly Payment and Time Frame |
| :---: | :---: | :---: |
| Standard <br> Repayment Plan | 1. Direct subsidized and unsubsidized loans <br> 2. All PLUS loans | -Payments are a fixed amount of at least $\$ 50$ per month -Up to 10 years |
| Graduated <br> Repayment Plan | 1. Direct subsidized and unsubsidized loans <br> 2. All PLUS loans | -Payments are lower at first and then increase, usually every two years -Up to 10 years |
| Extended <br> Repayment Plan | 1. Direct subsidized and unsubsidized loans <br> 2. All PLUS loans | -Payments may be fixed or graduated -12 to 25 years |
| Income-Based Repayment Plan (IBR) | 1. Direct subsidized and unsubsidized loans <br> 2. All PLUS loans made to students <br> 3. Consolidation loans that do not include consolidated PLUS loans made to parents | -Maximum monthly payments are 10\% of discretionary income (the difference between student's adjusted gross income and $150 \%$ of the poverty guideline for student's family size and state of residence) -If the student has not repaid his/her loan in full after making the equivalent of 20 years of qualifying monthly payments and 20 years have passed, any outstanding balance on the loan may be cancelled. Loan amount forgiven as part of taxable income <br> -Public service: Unpaid loan balance forgiven after 10 years |
| Income- <br> Contingent <br> Repayment Plan | 1. Direct subsidized and unsubsidized loans <br> 2. Direct PLUS loans made to students <br> 3. Direct consolidation loans | -Payments are calculated each year and are based on student's annual income*, family size, and the total amount of student's Direct Loans for up to 25 years <br> -*If student is married, student's spouse's income is included <br> -If the student does not repay his/her loan after 25 years under this plan, the unpaid portion will be forgiven. The student may have to pay income tax on the amount that is forgiven |

[^1]
## FFEL and Direct Loans: Student Loan Program Maximums

|  | Annual Limits | Annual Limits |
| :--- | :--- | :--- |
| Dependent Undergraduates | Stafford <br> (Subsidized) |  <br> Unsubsidized Stafford) |
| First-Year Student | $\$ 3,500$ | $\$ 5,500^{1}$ |
| Second-Year Student | $\$ 4,500$ | $\$ 6,500^{1}$ |
| Third Year+ Student | $\$ 5,500$ | $\$ 7,500^{1}$ |
| Independent Undergraduates ${ }^{2,3}$ | Stafford <br> $($ Subsidized) |  |
| First-Year Student | $\$ 3,500$ | $\$ 9,500^{1}$ |
| Second-Year Student | $\$ 4,500$ | $\$ 10,500^{1}$ |
| Third-Year+ Student | $\$ 5,500$ | $\$ 12,500^{1}$ |
| Graduate Students ${ }^{3}$ | $\$ 8,500$ | $\$ 20,500$ |
| Dependent Undergraduates | $\$ 23,000$ | Ag9regate Limits |
| Independent Undergraduates | $\$ 23,000$ | $\$ 31,000^{1}$ |
| Graduate Students ${ }^{3}$ | $\$ 65,500$ | $\$ 57,500^{1}$ |

[^2]
## Federal Student Loan Status

- In school
- Grace period (6 months after graduation)
- Repayment (current)
- Deferment
- Forbearance
- Delinquent
- Default
- Rehabilitated
- After the borrower has made 9 out of 10 consecutive, voluntary, on-time, reasonable and affordable monthly payments on a defaulted student loan according to a loan rehabilitation agreement, the loan may be rehabilitated and the default removed from the borrower's credit history


## Deferment and Forbearance Policy on Federal Loans

## Deferment

- Deferment is a postponement of payment on a loan, during which interest does not accrue if the loan is subsidized
- Borrowers can qualify for Deferment while:
- Enrolled at least half time in an eligible postsecondary school; or
- Studying full time in a graduate fellowship program or approved disability rehabilitation program; or
- Qualifying active duty service in the U.S. Armed Forces or National Guard
- During a period of unemployment or economic hardship (maximum period of 3 years)
- Loans are automatically put into deferment once the borrower enrolls in school at least half time
- If the borrower is in default, he/she is no longer eligible for deferment


## Forbearance

- If a borrower does not qualify for deferment, the loan may still be eligible for forbearance
- Forbearance allows the borrower to either temporarily stop making payments on the loan, make smaller payments, or extend the time for making payments
- Interest will continue to accrue on the student loans during the forbearance period
- The borrower can request forbearance for either financial hardship or illness
- In this case, forbearance is provided at the discretion of the lender
- The lender is required to grant forbearance if the borrower is performing teaching service, serving in a national service program, part of a medical or dental residency program, etc.


## Default Consequences

- Tax Refund Offsets: IRS can offset the borrower's income tax refund until the defaulted loan is paid in full. A number of states also have laws that authorize state guaranty agencies to take state income tax refunds.
- Federal Benefits Offsets: The government can offset certain Social Security benefits, some Railroad Retirement benefits to collect government student loans. Just as with other types of student loan collection, there is no time limit on Social Security offsets, according to a 2005 Supreme Court Case.
- Wage Garnishments: The government can also garnish wages as a way to recover money owed on a defaulted student loan. The United States Department of Education or a Student Loan Guarantor can garnish $15 \%$ of disposable pay ${ }^{1}$ per pay period without a court order.
- Effect on Credit History: Adversely affects credit for many years. If borrower defaults, loan will be listed as a current debt that is in default. The default will also be listed in the historical section of borrower's credit report, specifying the length of the default.
- License Revocations: A number of states allow professional and vocational boards to refuse to certify, certify with restrictions, suspend or revoke a member's professional or vocational license and, in some cases, impose a fine, when a member defaults on student loans.


## Terms for Forgiveness, Cancellation, and Discharge for Direct Loans

| Type of Forgiveness, <br> Cancellation, or Discharge | Direct <br> Loans | FFEL <br> Loans | Perkins <br> Loans |
| :--- | :---: | :---: | :---: |
| Total and Permanent Disability <br> Discharge | X | X | X |
| Death Discharge | X | X | X |
| Discharge in Bankruptcy ${ }^{1}$ | X | X | X |
| Closed School Discharge | X | X |  |
| False Certification of Student <br> Eligibility or Unauthorized <br> Payment Discharge | X | X | X |
| Unpaid Refund Discharge | X | X |  |
| Teacher Loan Forgiveness | X | X |  |
| Public Service Loan Forgiveness |  |  |  |
| Perkins Loan Cancellation and <br> Discharge (includes Teacher <br> Cancellation) |  |  |  |

1) Not an automatic process since you must prove to the bankruptcy court that repaying your student loan would cause undue hardship. The court uses a three-part test to determine hardship: 1) If you are forced to repay the loan, you would not be able to maintain a minimal standard of living, 2) There is evidence that this hardship will continue for a significant portion of the loan repayment period; 3) You made good-faith efforts to repay the loan before filing bankruptcy (usually this means you have been in repayment for a minimum of five years).
 activity will stop. You also will regain eligibility for federal student aid if you had previously lost it.
Source: Studentaid.ed.gov

## Income Based Repayment Capped Monthly Payment (U.S. \$/month)

Total Graduating Debt: U.S.\$ 100,000
Years in Repayment: 20-years

| Maximu | Mon | Pay | ts U | Old IBR | Maxim | Pay | S | New | \% Inco |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual |  | Family |  |  | Annual |  | Fami |  |  |
| Income | 1 | 2 | 3 | 4 | Income | 1 | 2 | 3 | 4 |
| \$15,000 | \$0 | \$0 | \$0 | \$0 | \$15,000 | \$0 | \$0 | \$0 | \$0 |
| \$20,000 | \$41 | \$0 | \$0 | \$0 | \$20,000 | \$27 | \$0 | \$0 | \$0 |
| \$25,000 | \$103 | \$29 | \$0 | \$0 | \$25,000 | \$69 | \$19 | \$0 | \$0 |
| \$30,000 | \$166 | \$91 | \$17 | \$0 | \$30,000 | \$110 | \$61 | \$11 | \$0 |
| \$35,000 | \$228 | \$154 | \$80 | \$5 | \$35,000 | \$152 | \$103 | \$53 | \$4 |
| \$40,000 | \$291 | \$216 | \$142 | \$68 | \$40,000 | \$194 | \$144 | \$95 | \$45 |
| \$45,000 | \$353 | \$279 | \$205 | \$130 | \$45,000 | \$235 | \$186 | \$136 | \$87 |
| \$50,000 | \$416 | \$341 | \$267 | \$193 | \$50,000 | \$277 | \$228 | \$178 | \$129 |
| \$55,000 | \$478 | \$404 | \$330 | \$255 | \$55,000 | \$319 | \$269 | \$220 | \$170 |
| \$60,000 | \$541 | \$466 | \$392 | \$318 | \$60,000 | \$360 | \$311 | \$261 | \$212 |

## Income Based Repayment and Public Service Loan Forgiveness

Public Service includes emergency management, military service, public safety, law enforcement, public interest law services, early childhood education, etc.

| Total Graduating Debt: | $\$ 100,000$ |
| :--- | ---: |
| Initial Adjusted Gross Income: | $\$ 60,000$ |
| Income Growth Rate: | $4.00 \%$ |
| Interest Rate: | $3.40 \%$ |
| Family Size: | 1 |
| Percentage of Discretionary | $10.0 \%$ |
| Income: |  |


|  | $\frac{\text { Income- }}{\underline{\text { Based }}}$ <br> Repayment | $\frac{\text { Fixed }}{\underline{\text { Monthly }}}$ <br> Repayment |
| :--- | ---: | ---: |
| Years in Repayment: | $\$ 360$ | $\$ 984$ |
| First Monthly Payment: | $\$ 52,829$ | $\$ 118,102$ |
| Total Amount Paid: | $\underline{\$ 31,187}$ | $\underline{\$ 18,102}$ |
| Total Interest Paid: | $\underline{\$ 21,642}$ | $\underline{\$ 100,000}$ |


| Government Payments |  |
| :--- | ---: |
| Loan Forgiveness: | $100 \%$ |
| Forgiveness Year: | 10 -years |
| Balance Write-off: | $\underline{\$ 78,358}$ |

Source: IBR Calculator at Finaid.org

## Student Loan Financing Activity

## Total Student Aid and Nonfederal Loans Used to Finance Postsecondary Education Expenses (Current U.S. \$, Mil.): 1990-91 to 2010-11

| Federal Programs | Academic Year |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | reliminary |
|  | 1990-91 | 91-92 | 92-93 | 93-94 | 94-95 | 95-96 | 96-97 | 97-98 | 98-99 | 99-00 | 00-01 | 01-02 | 02-03 | 03-04 | 04.05 | 05-06 | 06-07 | 07-08 | 08-09 | 09-10 | 10-11 |
| Grants |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pell Grants | \$4,935 | \$5,793 | \$6,176 | \$5,654 | \$5,519 | \$5,472 | \$5,780 | \$6,331 | \$7,233 | \$7,208 | \$7,956 | \$9,975 | \$11,642 | \$12,708 | \$13,150 | \$12,693 | \$12,817 | \$14,676 | \$18,291 | \$29,992 | \$34,762 |
| FSEOG | \$458 | \$520 | \$580 | \$583 | \$583 | \$583 | \$583 | \$583 | \$614 | \$619 | \$631 | \$691 | \$725 | \$760 | \$771 | \$779 | \$771 | \$771 | \$758 | \$758 | \$758 |
| LEAP | \$59 | \$62 | \$71 | \$72 | \$72 | \$64 | \$32 | \$50 | \$25 | \$25 | \$40 | \$55 | \$66 | \$66 | \$66 | \$65 | \$64 | \$65 | \$64 | \$63 | \$64 |
| Academic Competitiveness Grants |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$242 | \$309 | \$340 | \$479 | \$548 |
| SMART Grants |  |  | - | - | - |  |  |  |  |  |  |  | - |  |  |  | \$205 | \$205 | \$200 | \$359 | \$384 |
| Veterans | \$679 | \$876 | \$1,037 | \$1,192 | \$1,256 | \$1,303 | \$1,279 | \$1,347 | \$1,484 | \$1,491 | \$1,644 | \$1,883 | \$2,313 | \$2,657 | \$3,012 | \$3,176 | \$3,295 | \$3,477 | \$4,184 | \$8,516 | \$10,872 |
| Military | \$369 | \$394 | \$393 | \$405 | \$419 | \$447 | \$445 | \$462 | \$482 | \$525 | \$544 | \$646 | \$707 | \$904 | \$1,069 | \$1,075 | \$1,165 | \$1,260 | \$1,322 | \$1,246 | \$1,280 |
| Other Grants | \$118 | \$160 | \$182 | \$192 | \$269 | \$262 | \$246 | \$267 | \$271 | \$297 | \$332 | \$348 | \$343 | \$376 | \$395 | \$426 | \$448 | \$450 | \$469 | \$517 | \$398 |
| Social Security |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total Federal Grants | \$6,618 | \$7,804 | \$8,439 | \$8,099 | \$8,119 | \$8,130 | \$8,366 | \$9,040 | \$10,108 | \$10,165 | \$11,147 | \$13,598 | \$15,796 | \$17,470 | \$18,462 | \$18,214 | \$19,008 | \$21,213 | \$25,626 | \$41,930 | \$49,065 |
| Loans |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Perkins Loans | \$870 | \$868 | \$892 | \$919 | \$971 | \$1,029 | \$1,022 | \$1,062 | \$1,070 | \$1,101 | \$1,144 | \$1,239 | \$1,460 | \$1,639 | \$1,652 | \$1,594 | \$1,618 | \$1,383 | \$961 | \$818 | \$971 |
| Income Contingent Loans | \$6 | \$5 | \$5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |  |
| Subsidized Stafford | \$8,758 | \$9,461 | \$9,576 | \$12,396 | \$13,630 | \$15,035 | \$15,984 | \$16,119 | \$16,309 | \$16,190 | \$16,383 | \$17,391 | \$19,530 | \$22,039 | \$23,826 | \$24,440 | \$25,014 | \$29,098 | \$33,029 | \$38,060 | \$39,692 |
| (FDLP) |  |  |  |  | $(\$ 1,022)$ | $(\$ 4,595)$ | $(\$ 5,361)$ | $(\$ 5,569)$ | $(\$ 5,549)$ | $(\$ 5,367)$ | $(\$ 5,097)$ | (\$5,124) | $(\$ 5,485)$ | $(\$ 5,673)$ | (\$5,694) | (\$5,471) | $(\$ 5,198)$ | (\$5,862) | $(\$ 8,282)$ | (\$14,973) | $(\$ 39,692)$ |
| (FFELP) | $(\$ 8,758)$ | $(\$ 9,461)$ | (\$9,576) | $(\$ 12,396)$ | $(\$ 12,608)$ | (\$10,441) | (\$10,623) | (\$10,550) | (\$10,760) | $(\$ 10,823)$ | $(\$ 11,286)$ | $(\$ 12,267)$ | (\$14,045) | $(\$ 16,366)$ | (\$18,132) | (\$18,968) | (\$19,815) | (\$23,236) | (\$24,746) | $(\$ 23,087)$ | $(\$ 0,000)$ |
| Unsubsidized Stafford | - |  | \$275 | \$1,727 | \$6,229 | \$7,748 | \$9,137 | \$10,174 | \$10,900 | \$12,166 | \$13,108 | \$14,681 | \$16,996 | \$19,599 | \$21,845 | \$23,609 | \$24,349 | \$27,390 | \$40,424 | \$46,561 | \$46,088 |
| (FDLP) | - |  | - |  | (\$440) | $(\$ 2,208)$ | $(\$ 2,885)$ | $(\$ 3,301)$ | (\$3,415) | $(\$ 3,691)$ | (\$3,701) | (\$3,937) | $(\$ 4,308)$ | $(\$ 4,435)$ | $(\$ 4,564)$ | $(\$ 4,644)$ | $(\$ 4,450)$ | (\$4,926) | (\$9,323) | (\$17,832) | $(\$ 46,088)$ |
| (FFELP) | - |  | (\$275) | (\$1,727) | (\$5,790) | (\$5,540) | $(\$ 6,251)$ | (\$6,873) | $(\$ 7,485)$ | (\$8,475) | $(\$ 9,406)$ | $(\$ 10,744)$ | (\$12,688) | (\$15,164) | (\$17,281) | (\$18,965) | (\$19,899) | (\$22,464) | (\$31,101) | (\$28,729) | $(\$ 0,000)$ |
| PLUS | \$824 | \$1,004 | \$1,102 | \$1,316 | \$1,585 | \$2,065 | \$2,362 | \$2,678 | \$2,957 | \$3,285 | \$3,691 | \$4,122 | \$4,864 | \$6,233 | \$7,363 | \$8,183 | \$10,221 | \$10,774 | \$12,015 | \$14,586 | \$17,113 |
| (FDLP) |  |  |  |  | (\$154) | (\$663) | (\$791) | (\$904) | (\$1,041) | $(\$ 1,123)$ | $(\$ 1,182)$ | $(\$ 1,265)$ | $(\$ 1,526)$ | $(\$ 1,812)$ | $(\$ 2,000)$ | $(\$ 2,121)$ | $(\$ 2,240)$ | $(\$ 2,307)$ | $(\$ 3,476)$ | $(\$ 6,271)$ | $(\$ 17,113)$ |
| (FFELP) | (\$824) | $(\$ 1,004)$ | (\$1,102) | (\$1,316) | (\$1,431) | $(\$ 1,402)$ | (\$1,571) | (\$1,774) | (\$1,915) | $(\$ 2,162)$ | $(\$ 2,509)$ | $(\$ 2,857)$ | $(\$ 3,338)$ | $(\$ 4,421)$ | $(\$ 5,363)$ | $(\$ 6,062)$ | $(\$ 7,981)$ | $(\$ 8,467)$ | $(\$ 8,539)$ | $(\$ 8,315)$ | (\$0) |
| SLS | \$1,493 | \$1,765 | \$2,072 | \$2,531 | \$524 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | - |  |
| (FDLP) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (FFELP) | (\$1,493) | (\$1,765) | (\$2,072) | (\$2,531) | (\$524) | - | - |  |  |  | - | - | - | - | - | - |  |  |  | - | - |
| Other Loans | \$345 | \$367 | \$411 | \$456 | \$404 | \$325 | \$281 | \$217 | \$117 | \$113 | \$116 | \$118 | \$125 | \$125 | \$141 | \$157 | \$160 | \$125 | \$119 | \$116 | \$131 |
| Total Federal Loans | \$12,295 | \$13,469 | \$14,333 | \$19,344 | \$23,344 | \$26,202 | \$28,786 | \$30,249 | \$31,353 | \$32,855 | \$34,442 | \$37,551 | \$42,976 | \$49,635 | \$54,826 | \$57,983 | \$61,363 | \$68,769 | \$86,548 | \$100,142 | \$103,995 |
| Federal Work-Study | \$728 | \$760 | \$780 | \$771 | \$757 | \$764 | \$776 | \$906 | \$913 | \$917 | \$939 | \$1,032 | \$1,097 | \$1,107 | \$1,082 | \$1,050 | \$1,042 | \$1,063 | \$1,113 | \$1,246 | \$1,171 |
| Education Tax Benefits | - |  | - | - | - |  |  | \$1,487 | \$3,552 | \$4,147 | \$4,211 | \$4,631 | \$5,259 | \$5,784 | \$6,130 | \$6,398 | \$6,584 | \$6,677 | \$10,713 | \$14,651 | \$14,830 |
| Total Federal Aid | \$19,641 | \$22,033 | \$23,552 | \$28,215 | \$32,220 | \$35,096 | \$37,928 | \$41,682 | \$45,927 | \$48,085 | \$50,739 | \$56,813 | \$65,128 | \$73,996 | \$80,501 | \$83,645 | \$87,997 | \$97,722 | \$124,000 | \$157,969 | \$169,061 |
| State Grant Programs | \$1,860 | \$1,968 | \$2,125 | \$2,374 | \$2,773 | \$3,000 | \$3,163 | \$3,404 | \$3,669 | \$4,064 | \$4,766 | \$5,223 | \$5,792 | \$5,991 | \$6,614 | \$6,836 | \$7,581 | \$7,998 | \$8,400 | \$8,926 | \$9,207 |
| Institutional Grants | \$6,130 | \$7,090 | \$7,930 | \$8,850 | \$9,670 | \$10,440 | \$11,450 | \$12,580 | \$13,870 | \$15,310 | \$16,240 | \$16,940 | \$17,660 | \$19,810 | \$21,650 | \$23,840 | \$26,210 | \$28,120 | \$31,020 | \$34,160 | \$38,110 |
| Private \& Employer Grants | \$2,020 | \$2,420 | \$2,810 | \$2,820 | \$2,830 | \$2,840 | \$3,320 | \$3,890 | \$4,550 | \$5,330 | \$5,850 | \$6,410 | \$7,030 | \$7,700 | \$8,520 | \$9,430 | \$10,440 | \$11,550 | \$11,960 | \$10,550 | \$10,840 |
| Total Federal, State, Institutional, Private Aid | \$29,651 | \$33,511 | \$36,418 | \$42,259 | \$47,493 | \$51,376 | \$55,861 | \$61,556 | \$68,016 | \$72,789 | \$77,596 | \$85,385 | \$95,610 | \$107,497 | \$117,285 | \$123,751 | \$132,228 | \$145,390 | \$175,380 | \$211,605 | \$227,219 |
| Nonfederal Loans |  |  |  |  |  | \$1,330 | \$1,860 | \$2,310 | \$2,900 | \$4,560 | \$5,090 | \$6,220 | \$8,260 | \$10,820 | \$14,510 | \$17,790 | \$21,100 | \$23,190 | \$11,860 | \$8,450 | \$7,870 |
| (State- and Institution-Sponsored) |  |  | - | - |  | (\$220) | (\$290) | (\$350) | (\$400) | (\$1060) | (\$1090) | (\$1220) | (\$1260) | (\$1420) | (\$1510) | $(\$ 1,790)$ | $(\$ 2,100)$ | $(\$ 2,090)$ | $(\$ 1,560)$ | $(\$ 1,650)$ | $(\$ 1,870)$ |
| (Private Sector) | - | - | - | - | - | $(\$ 1,110)$ | (\$1,570) | $(\$ 1,960)$ | $(\$ 2,500)$ | $(\$ 3,500)$ | $(\$ 4,000)$ | $(\$ 5,000)$ | $(\$ 7,000)$ | $(\$ 9,400)$ | $(\$ 13,000)$ | $(\$ 16,000)$ | $(\$ 19,000)$ | $(\$ 21,100)$ | $(\$ 10,300)$ | $(\$ 6,800)$ | $(\$ 6,000)$ |
| Total Funds Used to Finance Postsecondary Expenses | \$29,651 | \$33,511 | \$36,418 | \$42,259 | \$47,493 | \$52,706 | \$57,721 | \$63,866 | \$70,916 | \$77,349 | \$82,686 | \$91,606 | \$103,870 | \$118,317 | \$131,795 | \$141,541 | \$153,328 | \$168,580 | \$187,240 | \$220,055 | \$235,089 |

Notes: Components may not sum to totals because of rounding. Federal loan dollars reflect disbursements beginning in 1995-96. Prior to 1995-96 the data reflect gross loan commitments. These amounts are approximately $11 \%$ higher than disbursements. The Ford Federal Direct Student Loan (FDSL) Program began in 1992-93. From that year, FFEL and FDSL volumes are reported separately. "Private and Employer Grants" are estimated based on NPSAS data and surveys conducted by the National Scholarship Providers Association. Data for these programs were not estimated prior to 1993-94, even though funds were available from these sources. Where precise data are not available, the division of aid between undergraduate and graduate students is based on the NPSAS.
Source: The College Board

## Percentage Share of Federal and Nonfederal Student Loans (Constant 2010 U.S. \$): 2001 to 2011¹



1) Data for academic year ending in years shown above

Nonfederal loans include loans to students from states and from institutions, in addition to private loans by banks, credit unions, and Sallie Mae Source: College Board

## Total Student Aid and Nonfederal Loans Used to Finance Postsecondary Education Expenses in Constant 2010 Dollars (in Millions), 1963-64 to 2010-11



## U.S. Student Loans Outstanding and Cost of Tuition: 2003 to 2011



Note: in-state tuition and required fees for public institutions
Source: FRBNY; U.S. Department of Education

## Average U.S. Student Loan Balance and Number of Borrowers: Q1 2005 to Q1 2012


ncludes all age groups
Source: FRBNY

## Percentage of Undergraduate Students Receiving <br> Student Loans: 2001 to 2010¹

All Undergraduate Students ${ }^{2}$


## Public and Private for-Profit Undergraduate Students



## Average Student Loan Balance by Age Group: Q1 2012



## Total Student Loan Debt by Age Group (U.S. \$ Bil.): Q1 2012



Loan Performance

## U.S. Student Loans: Amount and Percentage of Total Balance Delinquent for 90 or More Days: <br> Q1 2003 to Q1 2012



[^3]
## National Student Loan Cohort Default Rates for Federal Student loans: 1987 to 2009



Note: The cohort default rate is the percentage of borrowers who enter repayment in a fiscal year and default by the end of the next fiscal year Source: J.P. Morgan; U.S. Department of Education

# Budget Implications of Direct Federal Student Lending 

## U.S. Total Debt Held by the Public ${ }^{1}$ and Total Debt Held by Public Net of Direct Loan Accounts: Fiscal Year 2008 to 2022



1) Includes checks outstanding, accrued interest payable on Treasury debt, uninvested deposit fund balances, allocations of special drawing rights, and other liability accounts; and, as an offset, cash and monetary assets (other than the Treasury operating cash balance), other asset accounts, and profit on sale of gold
Source: OMB

## CBO Baseline Projected Direct Student Loan <br> Subsidy Rates (\%): 2012 to 2022



Subsidized Student



GradPlus Student


CBO March 2012 baseline; by fiscal year
Source: CBO

## Direct Loans Subsidy Rate (\%): Original vs. Reestimate ${ }^{1}$ : Fiscal Year 1994 to 2011



1) Reestimates from Federal Credit Supplement - Budget of the U.S. Government Fiscal Year 2013 Source: OMB

# Contribution to Change between Original and Reestimated ${ }^{1}$ Direct Loans Subsidy Rate: Fiscal Year 1994 to 2011 



1) Reestimates from Federal Credit Supplement - Budget of the U.S. Government Fiscal Year 2013 Source: OMB

Hypothetical Cash Flow Modeling and Funding Profiles

## Note on Data Used in this Presentation

Sources for information in this report include

- Federal Reserve
- Department of Education
- Consumer Financial Protection Bureau
- Office of Management and Budget
- Congressional Budget Office
- College Board
- Private lenders

In some instances data is inconsistent or limited with regard to information needed to evaluate student loan performance and trends.

It may be worthwhile to provide more complete historical data in a centralized manner

## Data Assumptions

- The loan is an unsubsidized Stafford loan
- Borrower is in deferment while in school as a result of being enrolled at least half time
- There is no grace period - the borrower starts repaying immediately after graduation
- Interest rate: 6.8\%
- Repayment schedule assumes interest accrues for 4 years and level pays for 10years
- Default base case assumption: 16.6\% cumulative default rate (CDR); 8\% default rate in year one with decay to achieve CDR in 10-years
- Default alternative assumption: 33.2\% cumulative default rate (CDR); 8\% default rate in year one with decay to achieve CDR in 10-years
- Recovery period: No payments for 5-years post-default and then full payment in a level fashion over 5-years (5Y5Y); No payments for 5-years post-default and then full payment in level fashion in 10-years (5Y10Y)
- $1.66 \%$ weighted average funding cost: Calculated based on the weighted average yield of current Treasury zeros to match-fund the cash flow of a hypothetical unsubsidized Stafford loan carrying 6.8\% interest, 10-years post-graduation term to maturity, $16.6 \%$ CDR, and a recovery assumption of no payments for 5 -years postdefault and then full payment in a level fashion in 5-years (5Y5Y)


## Unsubsidized Stafford Loan: Hypothetical Cash Flow Profile

- First-year borrower completes school in four years
- Interest rate: 6.8\%; term: 10-years post-graduation
- Default base case assumption: $16.6 \%$ cumulative default rate (CDR); $8 \%$ default rate in year one with decay to achieve CDR in 10-years
- Recovery period: No payments for 5-years post-default and then full payment in 5-years (5Y5Y)
- Weighted average life (WAL) in years:

| No default | 9.50 |
| :--- | :---: |
| $16.6 \%$ CDR with 5Y5Y recovery | 10.01 |
| $33.2 \%$ CDR with 5Y5Y recovery | 10.62 |



## Cash Flow Variance in Different Default Scenarios

- First-year borrower completes school in four years
- Interest rate: 6.8\%; term: 10-years post-graduation
- Default base case assumption: $16.6 \%$ cumulative default rate (CDR); $8 \%$ default rate in year one with decay to achieve CDR in 10-years
- Default alternative assumption: 33.2\% cumulative default rate (CDR); 8\% default rate in year one with decay to achieve CDR in 10-years
- Recovery period: No payments for 5-years post-default and then full payment in 5-years



## Cash Flow Variance in Different Default and Recovery Scenarios

- First-year borrower completes school in four years
- Interest rate: 6.8\%; term: 10-years post-graduation
- Default base case assumption: $16.6 \%$ cumulative default rate (CDR); $8 \%$ default rate in year one with decay to achieve CDR in 10-years
- Default alternative assumption: 33.2\% cumulative default rate (CDR); 8\% default rate in year one with decay to achieve CDR in 10-year
- Recovery period: No payments for 5-years post-default and then full payment in 5-years (5Y5Y); No payments for 5 -years post-default and then full payment in 10-years (5Y10Y)


## Extended Recovery vs Base Case

(16.6\% CDR with 5Y10Y vs $16.6 \%$ CDR with 5Y5Y)


Higher Default, Extended Recovery vs Base Case
(33.2\% CDR with 5Y10Y vs 16.6\% CDR with 5Y5Y)


## Hypothetical Modeled Funding Scenarios Relative to 2012 (2012=100) in Different Loan Growth Scenarios

- Assumes program fully ramped and loan interest rates 300 bp above the funding cost






## Liability Management Considerations

## Potential Liability Management Options

| Description | Pros | Cons |
| :--- | :--- | :--- |
| Cash flow-matched funding <br> with existing coupon <br> maturities | Ease of implementation given no new <br> forms of issuance | Dependency on assumptions that drive <br> cash flows, exposure to cash flow <br> variability; debt costs may be higher than <br> necessary |
| Extendibles | Classic agency origination technique; <br> partially automates origination and <br> asset-liability matching | Higher cost given maturity uncertainty |
| Putables | Reduce up front origination cost. Grants <br> optionality to investor to put bonds back <br> to issuer. Works when negative <br> correlation between defaults <br> (unemployment) and Treasury yields <br> holds | Could add to Treasury funding <br> requirements at an inopportune time if <br> the correlation breaks down due to credit <br> issues |
| Amortizing, Sinking Funds | Spreads out liabilities stream; provides <br> Treasury a chance to buyback bonds at <br> a discount if rates rise; lower coupon | Hard to evaluate option; increases <br> rollover risk; less structural appeal to <br> investors |
| Passthroughs | Familiar MBS structure appeals to some <br> investors; automates duration and cash <br> flow matching | Complexity and policy risk curb attraction <br> to some investors |
| Create a new segregated <br> funding program for student <br> loans | Additional flexibility to more accurately <br> use sophisticated liability management <br> tools to fund highly-complex student <br> loan program | Integration with rest of the U.S. Treasury <br> funding programs |

## U.S. Treasury Student Loan Primary Funding Menu

| Structure | Coupon (\%) | Duration | Convexity | OAS |
| :---: | :---: | :---: | :---: | :---: |
| 10-yr bullet | 1.54 | 9.24 | 0.94 | -5.10 |
| 7-yr bullet | 1.04 | 6.73 | 0.50 | 0.10 |
| 10-yr bullet, Issuer option to extend to 20 yr in 10 yr , same coupon | 2.45 | 11.41 | 0.36 | 0.90 |
| 10-yr bullet, Issuer option to extend to 20 yr after yr 5, same coupon | 2.45 | 11.41 | 0.36 | 0.90 |
| 7 -yr bullet, Issuer option to extend to 14 yr in 7 yr , same coupon | 2.05 | 9.01 | -0.27 | 0.50 |
| 7 -yr bullet, Issuer option to extend to 14 yr after yr 4, same coupon | 2.05 | 9.01 | -0.27 | 0.50 |
| $10-\mathrm{yr}$ bullet, European put from Investor at 5 yr | 0.55 | 5.01 | 0.38 | -8.90 |
| 10-yr bullet, American put from Investor at 5 yr | 0.54 | 5.08 | 0.52 | -7.60 |
| 10 -yr bullet, Bermudan put from Investor at 5 and 7 yrs | 0.55 | 5.06 | 0.44 | -7.80 |
| $7-\mathrm{yr}$ bullet, European put from Investor at 5 yrs | 0.59 | 5.01 | 0.34 | -5.30 |
| $7-\mathrm{yr}$ bullet, American put from Investor at 5 yrs | 0.58 | 5.03 | 0.40 | -5.00 |
| 10-yr bullet, 10\% annual sinking fund beginning in yr 5 | 1.36 | 7.90 | 0.72 | -1.40 |
| $10-\mathrm{yr}$ bullet, $10 \%$ annual sinking fund (SF), with option to double to total of $20 \%$ in every yr (issuer's option, every year), beginning in yr 5 | 1.50 | N/A | N/A | N/A |
| 10-yr bullet, $10 \%$ annual SF, starting in yr 2 | 1.07 | 5.02 | 0.38 | 3.40 |
| 7-yr bullet, 10\% annual SF, beginning in yr 2 | 0.83 | 4.74 | 0.30 | -0.40 |
| 7 -yr bullet, $10 \%$ annual SF, with option to double (issuer's option, every year), beginning in yr 2 | 0.90 | N/A | N/A | N/A |
| $10-\mathrm{yr}$, noncall 5, American option to call at par thereafter | 1.77 | 8.51 | 0.22 | 1.10 |
| $10-\mathrm{yr}$, noncall 5 , American option to call at par plus initial coupon, descending to par on final | 1.72 | 8.71 | 0.16 | 2.80 |
| 7-yr, noncall 3, American option to call at par thereafter | 1.25 | 5.67 | -1.36 | 5.10 |
| 7 yr , noncall 3, American option to call at par plus initial coupon, descending to par on final | 1.19 | 5.93 | -0.55 | 5.20 |
| 7-yr, noncall 5, American option to call at par thereafter | 1.13 | 6.53 | 0.21 | 3.80 |

[^4]
## Data and Analysis Considerations

For purposes of assessing loan cash flows, variability, and credit performance

- Volume and growth rates by type of loan (unsubsidized, subsidized, PLUS, consolidation)
- Choice of repayment option
- Percent in deferment and forbearance by type
- Type of school (2yr, 4yr, public, private, for-profit, etc)
- Academic major and wage correlation
- For payment plans specific to public service
- percent that remain in payment plan
- credit performance
- Rates and causes of forgiveness, cancellations, and discharges
- Delinquency transition rates from 30 to 60, 60 to 90, etc
- Rehabilitation rates and redefault rates
-Co-signer credit information, recovery
Prepayments
- Wage levels leading to prepay
- Other loan options, rates
- Sensitivity to interest rates


## Data and Analysis Considerations (continued)

Collections and Recovery

- Expense
- Source of collection

Voluntary
Involuntary
wage garnishment
tax refunds (impact of tax rates)
other benefits
Loan volume drivers

- College attendance rates
- Correlation to economic activity
- Correlation to relative wages, breakeven timelines

Analysis

- Model volumes, cash flow changes, delinquency, default, prepayments based on variables above
- Default seasoning curve based on school, major, repayment option
- Funding analysis based on modeled outcomes, adjusted as variables change
-Consider "FICO" score for schools and academic majors


[^0]:    1) Applies to undergraduate and graduate students; Interest rates for loans first disbursed between Jul. 1, 2012 and Jun. 30, 2013; 2) The Emergency Student Loan Consolidation Act of 1997, which was included in the Department's FY 1998 appropriations act, temporarily changed a number of laws affecting Consolidation Loans. Under this Act, which expired Sep. 30 1998, the interest rate for FFEL Consolidation Loans made on or after Nov. 13, 1997, was calculated based on the Treasury bill calculation--91 Day T-bill $+3.1 \%$, not the weighted average of the interest rates on the loans consolidated. Student Aid and Fiscal Responsibility Act (SAFRA) of 2010-part of the Health Care and Education Reconciliation Act of 2010 (HCERA)
[^1]:    Source: Studentaid.ed.gov

[^2]:    Note: As of July 1, 2010, all new loans are required to be disbursed through the Direct Loan program.

    1) ECASLA of 2008 increased Unsubsidized Stafford amounts by $\$ 2,000$ annually for loans first disbursed on or after July 1, 2008. Aggregate amounts for dependent undergraduates
     the PLUS program. 3) Students who qualify for only a portion of the maximum Stafford Loan limit may borrow up to the remaining loan amount under the Unsubsidized Stafford Loan program, with the total amount borrowed limited to cost of attendance minus other aid. For example, a dependent first-year student who qualifies for a $\$ 2,000$ Stafford Loan would be eligible for an additional $\$ 3,500$ in Unsubsidized Stafford up to the total of $\$ 5,500$. For students borrowing under both programs, the loan limits displayed above in the Total (Stafford and Unsubsidized Stafford) column apply.
    For independent undergraduate students (or dependent undergraduate students whose parents cannot borrow under the PLUS program) and for graduate and professional students, the maximum a student can borrow during any academic year is: the combined Stafford and Unsubsidized Stafford loan limit shown under the column entitled, "Total (Stafford and Unsubsidized Stafford)." For example, a second-year independent student could borrow up to $\$ 4,500$ under Stafford Loans and up to an additional $\$ 6,000$ in Unsubsidized Stafford Loans for a total of $\$ 10,500$. Under HERA, qualified graduate students are now eligible to borrow PLUS loans, where no limit applies other than cost of attendance. The aggregate loan limit for graduate students is determined by the Secretary of Education.
    Source: U.S. Department of Education; Studentaid.ed.gov
[^3]:    Source: FRBNY

[^4]:    Calculation Source: J.P. Morgan

