Treasury Borrowing Advisory Committee

Quarterly Refunding

July 29, 2003
Financing Projections
# TREASURY FINANCING REQUIREMENTS

$ Billions

<table>
<thead>
<tr>
<th></th>
<th>April - June 2003</th>
<th>July - Sept. 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Projected)</td>
<td>(Actuals)</td>
</tr>
<tr>
<td>Deficit Funding (Def + / Surplus -) *</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Means of Financing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in Cash Balance</td>
<td>-32</td>
<td>-17</td>
</tr>
<tr>
<td>Compensating Balances</td>
<td>-18</td>
<td>-12</td>
</tr>
<tr>
<td>Net Non-Marketable Financing</td>
<td>-5</td>
<td>-9</td>
</tr>
<tr>
<td>Net Marketable Financing</td>
<td>79</td>
<td>60</td>
</tr>
<tr>
<td>Other</td>
<td>-6</td>
<td>-4</td>
</tr>
<tr>
<td>Net Marketable Financing</td>
<td>79</td>
<td>60</td>
</tr>
<tr>
<td>Bills</td>
<td></td>
<td>-27</td>
</tr>
<tr>
<td>Nominal Notes</td>
<td></td>
<td>91</td>
</tr>
<tr>
<td>IIS</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Bonds (20-yr)</td>
<td></td>
<td>-3</td>
</tr>
<tr>
<td>Starting Cash Balance</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Ending Cash Balance</td>
<td>45</td>
<td>30</td>
</tr>
</tbody>
</table>

* Includes budget results, direct loan activity, changes in accrued interest and checks outstanding and minor miscellaneous transactions.

Note: Totals may not add due to rounding.
FINANCING RESIDUALS GIVEN CURRENT ISSUANCE

$ billions

$ billions

Deficits plus
Avg. Absolute Error

Deficits minus
Avg. Absolute Error

FY04 OMB MSR
Deficit Forecast

Bars Indicate Additional Financing Required In Given Year For Different Deficit Outcomes
BILLS AS A PERCENTAGE OF TREASURY'S MARKETABLE DEBT

Assuming OMB '04 Budget MSR
Deficit Forecasts Plus Avg. Absolute Error
Assuming OMB '04 MSR
Baseline Deficit Forecasts
MATURITY PROFILE
Outstanding Treasury Marketable Coupon Securities

Note: Where applicable, maturities represent first call date.

Issued or announced through July 25, 2003.
THE AVERAGE MATURITY OF TREASURY'S MARKETABLE DEBT AND ISSUANCE

The average maturity of issuance is the average maturity eventually achieved if nominal issuance is held constant going forward.

1/ The average maturity of issuance is the average maturity eventually achieved if nominal issuance is held constant going forward.
Changes to Auction Calendar Around FOMC Meetings
Uncertainty Around FOMC Meetings Expensive For Treasury

Actual Minus Expected Premium for 2-Year Notes at Auction

*The expected premium is calculated given the yield volatility in the 2-year sector, the size of the auction, and the steepness of the yield curve. Including a variable to control for auctions held on the same day as FOMC meetings indicates a cost for the Treasury of 2.7bps.*
Treasury’s Issuance of Long-Term Securities
Treasury’s Debt Management

Low borrowing cost over time
- Regular pattern of issuance
- Predictable issuance sizes

Flexibility
- Need ability to raise and pay-down cash
Strategy Not Affected By…

• Current interest rates
• Annual deficit
• Short-term fluctuations in demand
Implementation

• Auction dates known in advance
  ➢ Reduces investor uncertainty

• Changes in auction sizes are transparent
  ➢ Allows intermediaries to adjust to changes in supply.

• Auction sizes large
  ➢ Assures investors of good liquidity

• Market consultation
  ➢ Reduces investor uncertainty
Size of Operations Hard to Grasp

- $3.7 trillion raised in 176 auctions in 2002
- $171 billion paid in net interest in 2002
  - represented 8.5% of Government expenditures
- $462 billion in Treasuries are traded daily
- $3.4 trillion in marketable debt outstanding
  - represents approximately a quarter of U.S. credit markets
Low Cost Over Time:
Longer Maturities More Expensive on Average

Difference in Realized Cost
Spread Between 10-Year Notes and 1-Year Bills Rolled Ten Times

Includes Forward Rates as of May 21, 2003
Low Cost Over Time:
10yr-30yr Spread Has Widen As Rates Have Fallen

Spread Between the 30-Year Bond and the 10-Year Note
Low Cost Over Time:
Requires a Diversified Debt Portfolio

Spread debt across maturities to...

- Reduce event risk
- Diversify investor base
- Improve cash management
- Reduce operational risk
- Engender regular and predictable issuance
Low Cost Over Time: Treasury Has a Diversified Debt Portfolio

Distribution of Debt by Security

Projections 2003-2008
Low Cost Over Time: Bond Issuance Low But Impact Grows Over Time...

Annual Bond Issuance
Nominal Amounts and as a Percentage of Annual Issuance
Low Cost Over Time: Bonds Currently 17% of Treasury’s Marketable Debt

Distribution of Treasury’s Marketable Debt Outstanding By Security
As of June 30, 2003
Low Cost Over Time: Issuing Bonds Regularly Has Been Expensive

Bonds as a Percentage of Marketable Debt and Interest Expenses

Interest on Bonds as a Percentage of Interest Expenses on Marketable Debt

Nominal Bonds as a Percentage of Marketable Debt
Low Cost Over Time: Maturing Debt and Issuance Stable without Bond

Annual Issuance as a Percentage of GDP and Percentage of Debt Maturing in 12 Months

Issuance as a % of GDP (LHS)

% of Debt Maturing in 12 Months (RHS)

Projections 2003-2008
Flexibility:
Fiscal Needs Volatile

Weekly Receipts Minus Expenditures

*Expenditures exclude debt redemptions and unclassified withdrawals.
Flexibility:
Future Financing Requirements Uncertain

Average Absolute Federal Budget Forecast Errors
1997 - 2002

CBO
OMB
Primary Dealers
Flexibility:
Frequent Auctions of Shorter Maturities

Year Over Year Change in Total Annual Issuance

*Bills
*2-Year
*5-year
*10-year
*30-year

* Nominal securities only. No inflation-indexed securities included.
Flexibility:
Longer Maturities Unsustainable During Surpluses

Estimated Average Auction Size in 5 Years\(^1\)
Based On Budget Forecast At The Time

1/ Issuance is based on securities being issued at time of forecast and includes SOMA.
Flexibility:
Weight Issuance Towards Shorter Maturities

• Financing needs are volatile and uncertain

• Investor base for long-term debt is ill-suited for high frequency auctions

• Long-term debt hampers regular and predictable issuance in improving fiscal environments
Conclusions

- Achieving the lowest cost over time requires the regular and predictable issuance of a diversified portfolio of debt

- Weight issuance towards shorter maturities
  - Less costly
  - More flexible (i.e., frequent issue/maturity dates)

- Bonds
  - Expensive
    - Risk premium
    - Commitment to regular issuance in all rate environments has a large effect on Treasury’s portfolio of outstanding debt
  - Inflexible
    - Infrequent auctions
    - Restricts other issuance in an improving fiscal environment
  - Unnecessary for managing risks