Presentation to the Treasury Borrowing Advisory Committee

U.S. Department of the Treasury
Office of Debt Management
January 29, 2008
Fiscal Outlook
Revenue from individual and corporate tax receipts continues to grow, though at a more moderate pace...
While the pace of expenditures has accelerated.
Year-over-year growth in outlays has exceeded that of receipts since October, reversing the trend of the past fiscal year.
Mitigating volatility in cash balances resulting from net receipts, redemptions, and other factors remains challenging.
Treasury’s bill issuance increased in the first quarter of FY 2008

Outstanding Bills
FYTD 2008 = $979 bil.
FYTD 2007 = $932 bil.
Absolute Chg. y.o.y.  + $47 bil.
Percent Chg. y.o.y.  + 5%
Maturing 3-year and 5-year notes create large outflows and cash management challenges
Net international purchases of US securities increased over September, October and November
In addition, international demand was robust across Treasury, Agency and Corporate Securities.
The increases in year-over-year holdings of Treasuries by the UK, Brazil and Oil Exporters continue to be large.
Estimates of the FY 2008 deficit have risen from $203 billion in November 2007 to $326 recently

<table>
<thead>
<tr>
<th>FY 08 Deficit Estimates</th>
<th>$ billions</th>
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<tbody>
<tr>
<td></td>
<td>Primary Dealers*</td>
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<tr>
<td>Current:</td>
<td>326</td>
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<tr>
<td>Range based on average absolute forecast error</td>
<td>242-410</td>
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<tr>
<td>Estimates as of:</td>
<td>January 08</td>
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Note: Ranges based on errors from 2003-2007.
* Primary Dealers reflect average estimate.
In 2001 – 2002, Treasury financed an increasing deficit primarily through increases in bill and shorter-term coupon issuance.
Potential Financing Considerations in FY 2008

- Increase bills as a percent of the portfolio
- Increase nominal coupons from current low levels
- Potentially issue longer-dated cash management bills to bridge low points in cash balances during tax refund season and if proposed fiscal stimulus is enacted
Given recent trends in the fiscal outlook, what are the TBAC’s thoughts on Treasury’s debt issuance? In addition, Treasury would like the Committee’s views on the proposed fiscal stimulus and how such stimulus could be financed by Treasury.
Low Interest Rate Environment
Stress Across Financing Markets

Moody's Seasoned Baa/Aaa Corporate Bond Spread

Asset Backed Commercial Paper Outstanding (SA, Bil$)

1-Month and 3 Month AA Financial CP Spread versus 1m and 3m LIBOR

2-Year Treasury versus AAA 2-Year Muni
In 2001 and 2003, increases in fails were seen when the Fed Funds rate was declining and remained at low levels.
Fails also occurred in other sectors of the financial markets during the low rate environment.
Since the last era of lower rates...

- FICC standardization of netting procedure for broker dealers

- Establishment of the Treasury Market Practices Group

- Issuance of Treasury Market Best Practices
  - “We recommend that all Treasury market participants incorporate best practices into their operations in order to promote trading integrity and support a efficient marketplace.”

- Changes to SOMA Securities Lending Program Limits
Considerations

- Buy-in Rule

- Negative Rate Repo Trading

- Increased coordination of settlement among custodians, asset managers, clearing corporations, etc.

- Other private sector/public sector initiatives
Current market conditions, coupled with the potential for lower interest rates raises the potential risk of systemic fails, a risk that we believe could impair liquidity and raise our cost of borrowing. Should any additional steps be taken to minimize the likelihood or impact of systemic fails so that overall market liquidity is not negatively impacted by Treasury repo financing?
Treasury Borrowing Advisory Committee
Presentation to the U.S. Treasury

Cyclical Influences on Federal Finances

January 29, 2008
Overview

• Economic cycles generally produce larger than anticipated swings in federal budget balances and the volatility seems to have increased even as the economy has become less cyclical. While the extreme volatility of the last cycle is not likely to be repeated, it is a cautionary background and highlights real upside risks to funding needs.

• If the economy avoids recession and the stock market does not deteriorate further – an optimistic though still reasonable scenario - the deficits in both 2008 and 2009 could still approach $400bl.

• If a full scale recession and market correction plays out – a scenario that many now anticipate - the 2009/2010 deficits could hit $800bl or more and approach the levels of the early 1980s as a share of GDP. It would be worth paying a deficit price in 2008, if this significantly reduces the chances of recession and much higher deficits in 2009 and beyond. However fiscal stimulus is difficult to time and can be inefficient.

• Treasury funding changes have tended to lag swings in funding needs and a quicker response this time is appropriate. Planning for $400bl deficits, with an eye to the possibility that they go considerably higher is a prudent course.

• Stock market and economic developments over the next 3-6 months should provide an early warning of greater funding needs ahead.
Tax receipts are highly cyclical

- Receipts are more volatile than outlays and were particularly volatile in the last cycle.
- While the weakness in GDP during recessions makes both revenues and spending swing as a % of GDP, over \( \frac{3}{4} \) of the cyclical deficit swing typically occurs on the revenue side.
- The start of recession-induced weakness in revenues is roughly coincident with the downturn, but continues well into the recovery both because counter-cyclical policy has tended to be “late” and because revenues (particularly non-withheld income taxes) tend to lag.
Budget Balances have become more volatile despite more moderate economic cycles

- While GDP has become less volatile over time, budget balances have become more volatile. The swing in the federal deficit over the past business cycle was the largest we have seen.

<table>
<thead>
<tr>
<th>Change in Budget Balance from Peak of Economic Expansion to Trough of Deficit (% of GDP)</th>
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<tr>
<td>Average 1954-95</td>
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<tr>
<td>2001 recession</td>
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</table>
Budget balance projections show large cyclical errors

- CBO projections (as well as those of others) have typically underpredicted deficits in downturns (even after factoring in stimulus legislation).

- The errors have tended to persist, remaining positive during upturns and negative throughout the period of weakness.

- The extreme volatility of the budget balance and the size of the forecast errors in the last cycle are a cautionary background for deficit forecasts in the current cycle.

- The fact that the size of the positive errors in the current cycle are similar to those of the past cycle (although they have not persisted as long and thus are not cumulatively as large) is also cautionary when considering the deficit implications of a possible recession.
Equity markets are a more significant source of federal revenues

- When considering the current vulnerability of the deficit to cyclical weakness there are good reasons not to expect a repeat of the last cycle’s extreme volatility. At the same time, the impact would likely still be considerable and greater than generally thought.
- The magnitude of the swing in the equity market in the last cycle was unprecedented and presumably was a key reason why receipts surged during the expansion and collapsed in the recession. It is not just capital gains. Stock options and incentive related pay have grown and are a greater share of personal income.
- The rise in the equity market has been considerably less this time around (although still much greater than earlier cycles) suggesting less vulnerability. The rise in house prices is unlikely to have had anywhere near the same impact on tax revenue.
Personal tax receipts vulnerable, but not as much as last downturn

• The effective personal tax rate has risen, however it is up only about one percentage point (from the post rebate clean 2005 level) compared to the three point rise in the previous cycle.

• However the rise is much greater than it was in the late 1980s and a good portion would presumably be reversed in the face of a recession and market downturn. (The rise in the late 1970s, reflected the bracket creep impact of extremely high inflation.)
In particular, withheld receipts seem less vulnerable

- The major difference in the current cycle is that the withheld tax rate has not risen significantly in the current cycle.
- This suggests that the roughly coincident impact of the cycle on withheld taxes will not be anywhere near as severe as that in the past cycle.
Within individual, nonwithheld receipts seem most at risk

- Nonwithheld receipts are more driven by capital gains and irregular sources of income and have risen almost as much as during the 1990s, which suggests a clear vulnerability.

- Even in a mild recession and with only a moderate equity market contraction, nonwithheld receipts could fall by a percentage point of GDP.

- Since final settlements are the largest component of nonwithheld, it is fiscal 2009 receipts that are at risk (since still good equity performance in 2007 should support the April 2008 final settlement). Weakness in estimated payments during 2008 would provide a warning that 2009 receipts are vulnerable.
Corporate receipts are another source of vulnerability

- Profit margins have risen rapidly to unusually high levels and the corporate sector is generating a greater share of revenues.

- Corporate margins are likely to weaken - they already have in the financial sector - even in the absence of a recession. The weakness of the dollar, however, will be a supportive factor that wasn’t there in 2001-2002.

- A one percentage point of GDP drop in corporate receipts would not be an unreasonable expectation in a very mild recession.
Incoming data do not yet suggest significant weakness

- Growth in individual receipts is holding up, while corporate receipts growth has not done much worse than flatten.

- The January personal income tax payment seems to be coming in reasonably solidly and withheld receipts have eased only very modestly.

- However, it is too soon to see the full impact of slower profit growth in corporate receipts or the impact of a weak stock market in individual receipts—these would show up in quarterly payments starting in March and April and particularly in final settlements in April 2009.
The 3T’s will Be Tricky to Accomplish

- Many observers have stressed that fiscal stimulus should be timely, targeted, and temporary. Yet is difficult to achieve efficient fiscal stimulus.

  - **Timely:** The current proposal includes tax rebate checks sent to households. Checks may reach households in June which is still a considerable ways off. Monetary policy stimulus has been aggressive and will be taking effect as fiscal policy hits. Tax deductions on capital purchases were also included, however capital spending decisions cannot be made on a dime and the impact would take time.

  - **Targeted:** Each dollar should generate the maximum possible near-term GDP effect. Most analysis suggests that at most 2/3 of the previous tax rebate was spent over a period of 2-3 quarters, with the impact of the business tax deduction having an even less certain impact. While the impact on the deficit will be certain, the stimulus to the economy will not be.
The 3T’s will Be Tricky to Accomplish cont.

– **Temporary**: The deficit will not be impacted too severely by the economic/market weakness in 2008 and can handle the impact of a stimulative fiscal package. By 2009 the deficit will be rising for economic reasons and countercyclical fiscal stimulus would potentially push the deficit to levels much higher than people anticipate.

**Bottom Line**: In general monetary policy can address cyclical fluctuations more efficiently than fiscal policy. There is a risk that, as with 2003, there will be fiscal stimulus on top of aggressive monetary stimulus which may have unwanted effects down the line.
Treasury issuance challenging at cyclical turning points

- Bill issuance has tended to absorb swings in borrowing needs in the short term
- Financing needs can change sharply, making issuance decisions difficult.
Starting point – room to grow but…

- Room to grow:
  - Gross coupon issuance has declined over the past several years
  - Net bill issuance was negative in 2005/06 and showed clear signs of supply/demand imbalance in 2007

- But…
  - SLGS issuance, which took away nearly $60bn in marketable issuance needs in 2007, will likely not be significant in 2008
  - Maturing debt is set to rise by over $50bn in 2008 so gross issuance already needed to increase by that just to keep net issuance steady
  - Elimination of the 3yr, where $30bn was issued in 2007, will need to be made up in gross issuance elsewhere along the curve
# How Much Issuance Might Need to Change

## Hypothetical Issuance Breakdown Under Various Deficit Projections

<table>
<thead>
<tr>
<th>Deficit ($bn)</th>
<th>Bills</th>
<th>2-under 5yr</th>
<th>5-10yr</th>
<th>Over 10yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>3700</td>
<td>310</td>
<td>330</td>
<td>45</td>
</tr>
<tr>
<td>400</td>
<td>3800</td>
<td>350</td>
<td>400</td>
<td>55</td>
</tr>
<tr>
<td>1000</td>
<td>4200</td>
<td>660</td>
<td>680</td>
<td>70</td>
</tr>
</tbody>
</table>

## Hypothetical Auction Sizes (assuming no change from current schedule)

<table>
<thead>
<tr>
<th>Deficit ($bn)</th>
<th>2yr</th>
<th>5yr</th>
<th>10yr</th>
<th>30yr</th>
<th>5yr TIPS</th>
<th>10yr TIPS</th>
<th>20yr TIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>26</td>
<td>16</td>
<td>12</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>400</td>
<td>29</td>
<td>20</td>
<td>14</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>1000</td>
<td>55</td>
<td>35</td>
<td>22</td>
<td>14</td>
<td>12</td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

- The current schedule appears adequate and flexible for an expected deficit of $200bn.
- At a $400bn expected deficit, the current schedule appears adequate, but not flexible enough to absorb downside surprises. Along with more frequent issuance, for example issuing monthly 10yr notes, adding an additional maturity point, such as bringing back the 1yr bill or 3yr note should be considered.
- Beyond a $400bn deficit, additional maturity points would likely be needed for well functioning auctions.