Treasury Debt Management



Timothy Bitsberger Deputy Assistant Secretary U.S. Treasury Department

DAILY PRIMARY DEALER TRADING VOLUMES 3-MONTH MOVING AVERAGES



TURNOVER RATIOS FOR NOMINAL AND INFLATION-INDEXED TREASURIES¹ 3-MONTH MOVING AVERAGES





PRIMARY DEALER TIIS POSITIONS AS A PERCENTAGE OF OUTSTANDING TIIS 3-MONTH MOVING AVERAGE

10-year TIIS Issuance Represents More Than a Quarter of Treasury's Total 10-year Note Issuance



Outstanding Treasury Inflation-Indexed Securities



Source: US Treasury

SIZE OF GLOBAL INFLATION-INDEXED BOND MARKET VS. OTHER ASSET CLASSES



Source: Bridgewater

Distribution of Competitive Auction Awards of 10-Year Treasury Notes



Return Profiles

1997 - 2002

	Lehman Index	10-Year Treasury	10-Year TIIS	S&P 500 Index w/dividends
2002 Returns	12.0%	14.9%	16.4%	-22.1%
Annualized Return	8.3%	8.9%	7.5%	3.3%
Monthly Volatility	1.3%	1.9%	1.1%	5.4%
Annual Volatility	5.7%	8.2%	6.1%	22.0%

Source: Barclays Capital

I/I BOND CORRELATION TO OTHER ASSETS AND INFLATION

1970 to Present		Equities	Nominal Bonds
	CPI	S&P 500	10 Yr Duration
1 Month	0.18	0.11	0.57
3 Month	0.27	0.02	0.64
1 Year	0.51	-0.18	0.29
3 Year	0.84	-0.47	-0.33
5 Year	0.91	-0.53	-0.35

Correlation of TIPS (10 Yr Duration) to

10-Year TIIS and Nominal Yields



Summary

- Treasury is committed because TIIS reduce cost
- Closest thing to a risk free asset for long-term investors.
- Highest credit quality
- Improve portfolio diversification
- Better match to inflation than real estate, commodities, or other real assets
- TIIS market is young but growing fast

TIIS Characteristics

- Fixed real coupon, paid semi-annually on inflation adjusted principal
- → Deflation-protected principal at maturity
 - Principal adjusted for inflation daily, but paid at maturity
 - Inflation accretion is referenced to the CPI-U NSA, set with a 3-month lag
 - First issue January 1997; 10 issues ranging from 2007 to 2032
 - \$150 billion market capitalization; total Treasury market capitalization \$3.3 trillion
 - Three 10-year TIIS auctions this year, increased issuance
 - Average daily trading volume over \$3 billion

Structure

- Principal value is adjusted for inflation by multiplying the value at issuance by an index ratio which changes daily. Inflation adjustment is paid at maturity.
- Coupon payments are a fixed percentage, determined at auction, of the inflation- adjusted value of the principal on the semiannual interest payment dates.
- The index ratio for a particular valuation date is the index number for that date divided by the index number for the issue date.
- Index Ratio _{Date} = <u>Index number for value date</u> Index number for dated date