

FINRA's TRACE and the U.S. Corporate Bond Market

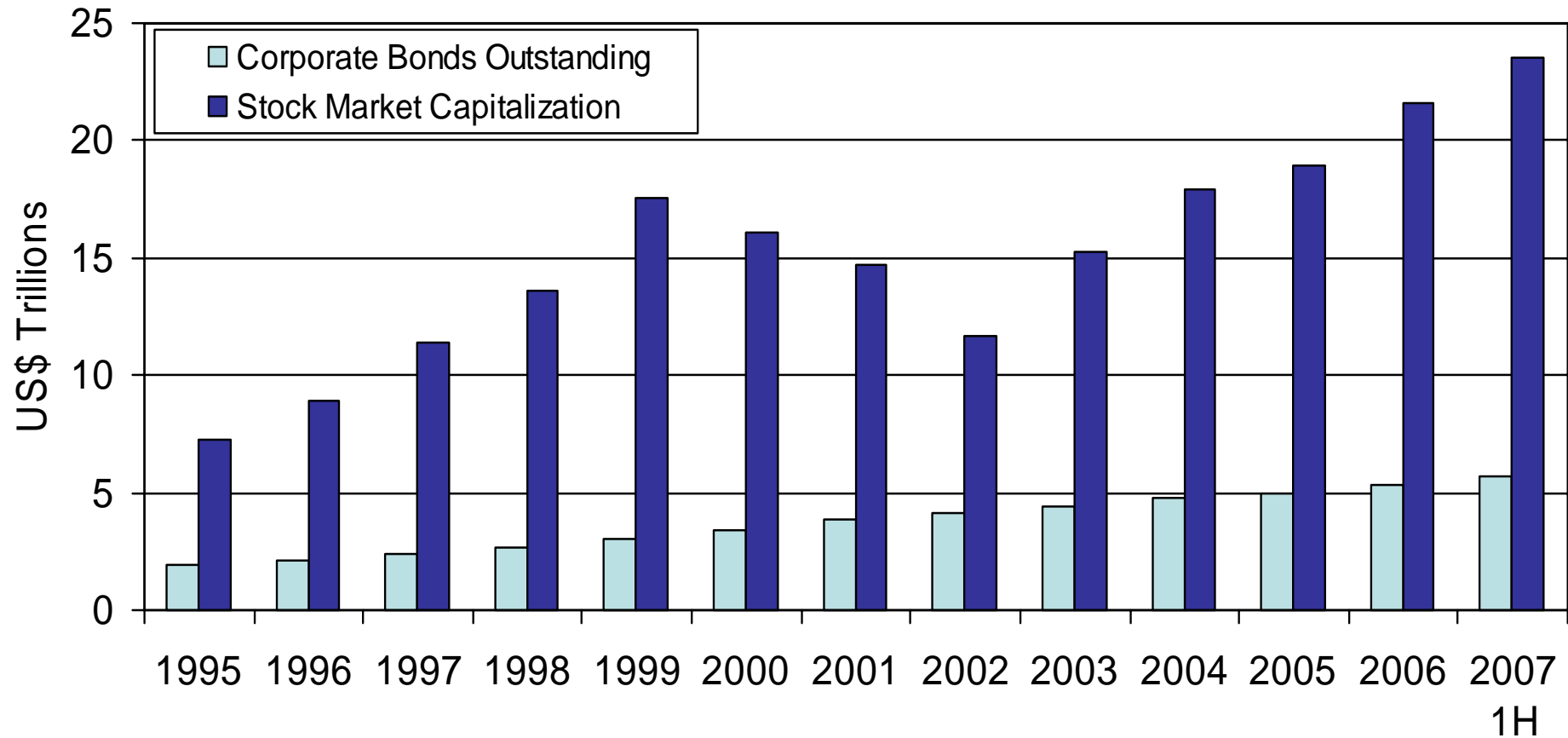
Michael Decker
Senior Managing Director,
Research and Public Policy

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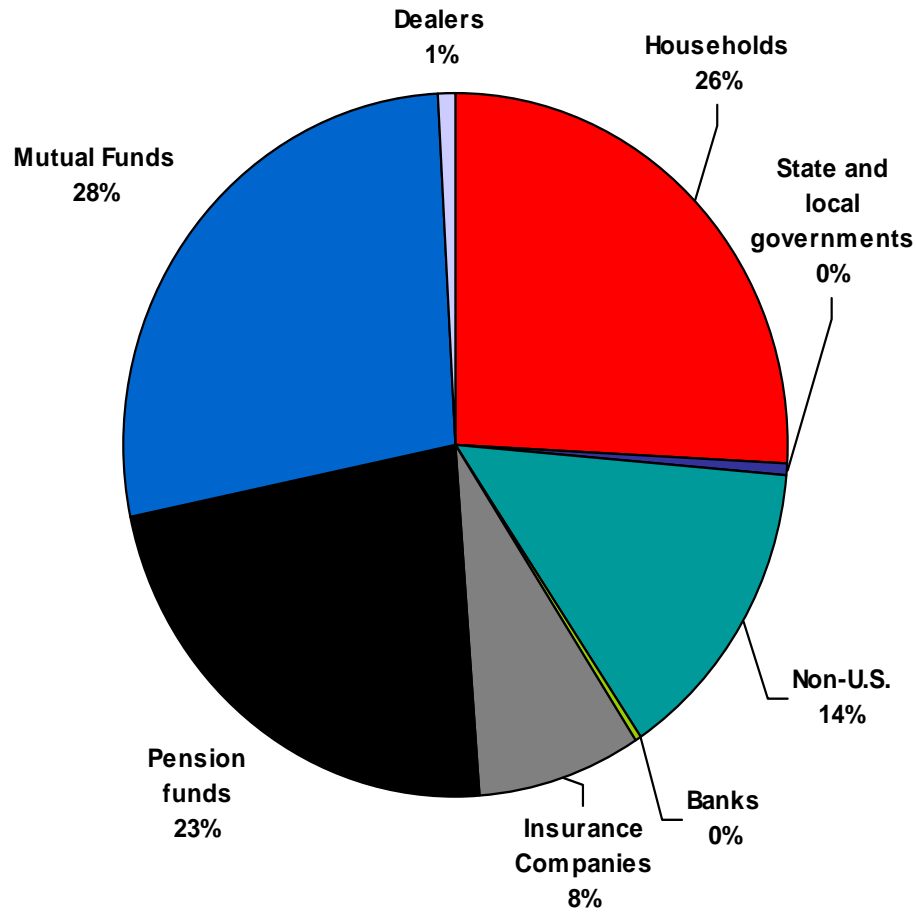
The Implementation of TRACE Ignored Several Key Issues

- ▶ The corporate bond market is overwhelmingly institutional, and institutional investors already had good access to multiple sources of price information.
- ▶ Corporate bonds are inherently illiquid and, except for shortly after issuance, do not trade frequently.
- ▶ There was no demonstrated market failure to warrant the implementation of TRACE, especially for the institutional market.
- ▶ Liquidity in the corporate bond market arises from dealers' committing risk capital to market making.



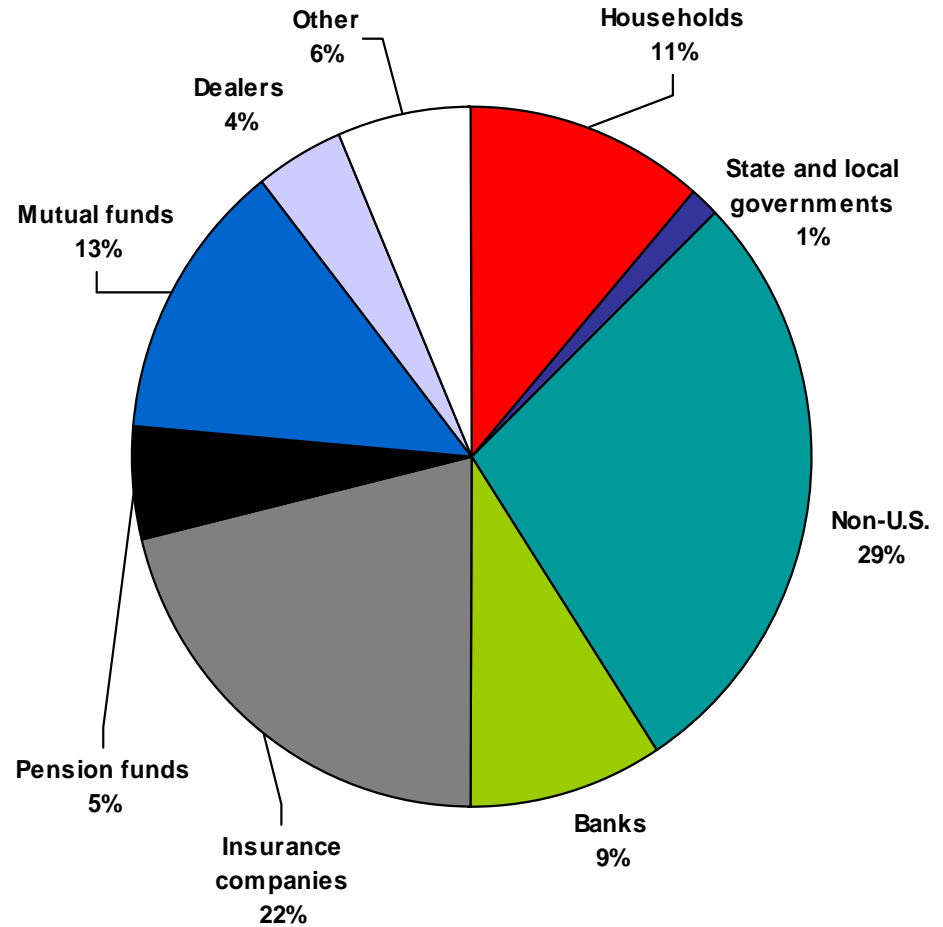
Source: Federal Reserve, NYSE, NASDAQ, Amex

Equities



Total: \$20.8 trillion

Corporate and Yankee Bonds and ABS



Total: \$10.1 trillion

- ▶ In 2006, there were 34,251 TRACE-eligible corporate bonds outstanding versus 6,832 listed equities.
- ▶ On average only 15 percent of TRACE bonds traded every day in 2006, versus 100 percent of listed equities.
- ▶ Of the TRACE bonds that traded in 2006, each averaged 4 trades per day. Listed equities traded on average 1,522 times per day.
- ▶ Of the TRACE bonds that traded, each traded on an average of 50 of 252 trading days.

Bessembinder, Maxwell and Venkataraman, “Market Transparency, Liquidity Externalities, and Institutional Trading Costs in Corporate Bonds,” *Journal of Financial Economics*, 82:2, November 2006.

- ▶ Concludes that transaction costs for corporate bonds fell 50 percent for TRACE-eligible bonds after TRACE was implemented and 20 percent for non-TRACE bonds.
- ▶ Looks at transaction costs, not trade volume.
- ▶ Does not include a significant number of high-yield bonds (page 26).
- ▶ Acknowledges limitations in data source.
- ▶ Results not conclusive: “Additional investigation of relations between market transparency, liquidity, and informational efficiency is warranted.”

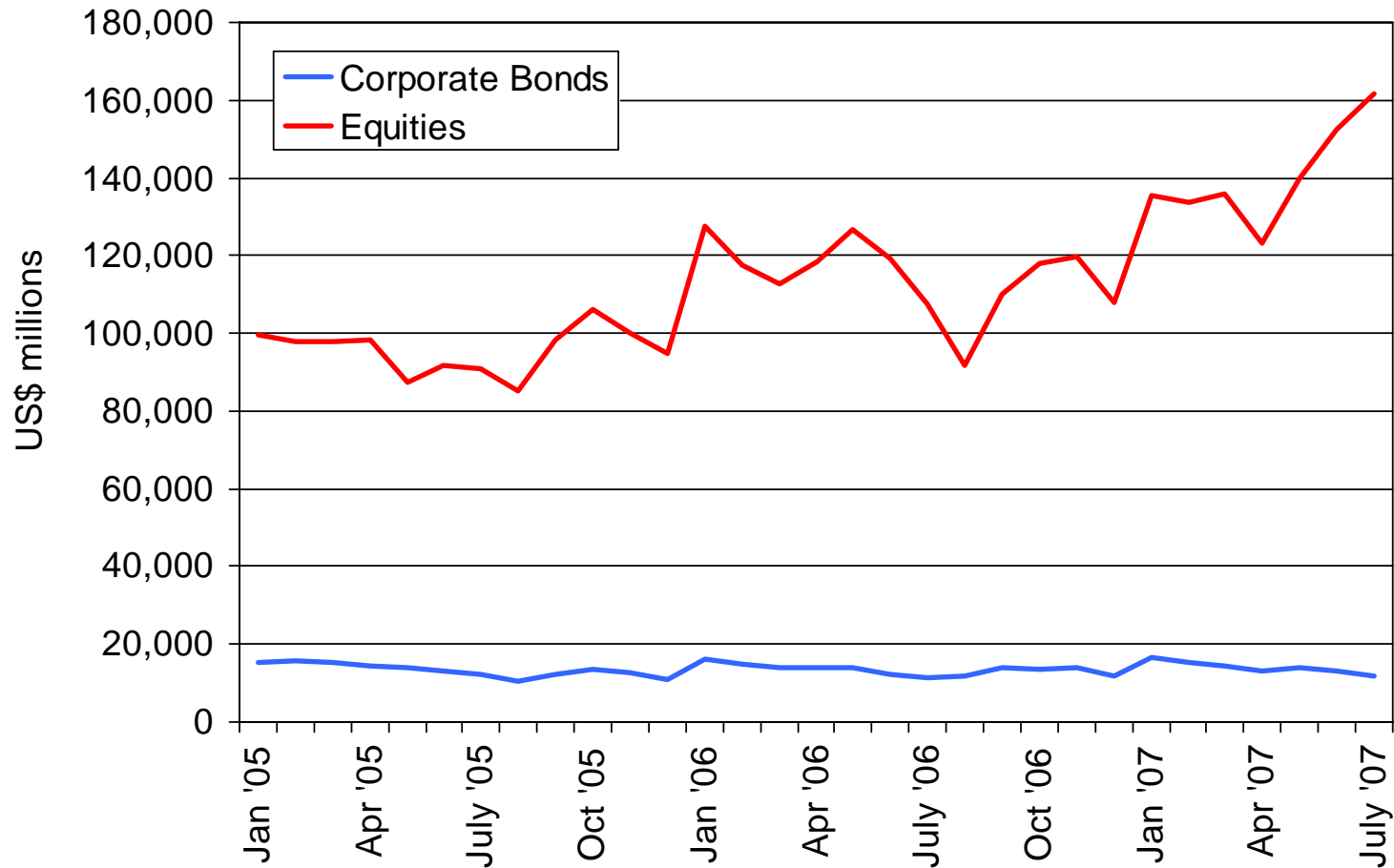
Goldstein, Hotchkiss and Sirri, “Transparency and Liquidity: A Controlled Experiment on Corporate Bonds,” *Review of Financial Studies*, 20:2, March 2007.

- ▶ Concluded that:
 - Increased transparency is not associated with greater trading volume.
 - Spreads for some trades fell as a result of introduced transparency.
 - There was no effect on spreads for very infrequently traded bonds.
- ▶ Does not examine high-yield bonds.
- ▶ Does not examine trading volume as a measure of liquidity.

Edwards, Harris and Piwowar, “Corporate Bond Market Transaction Costs and Transparency,” *The Journal of Finance*, LXII:3, June 2007.

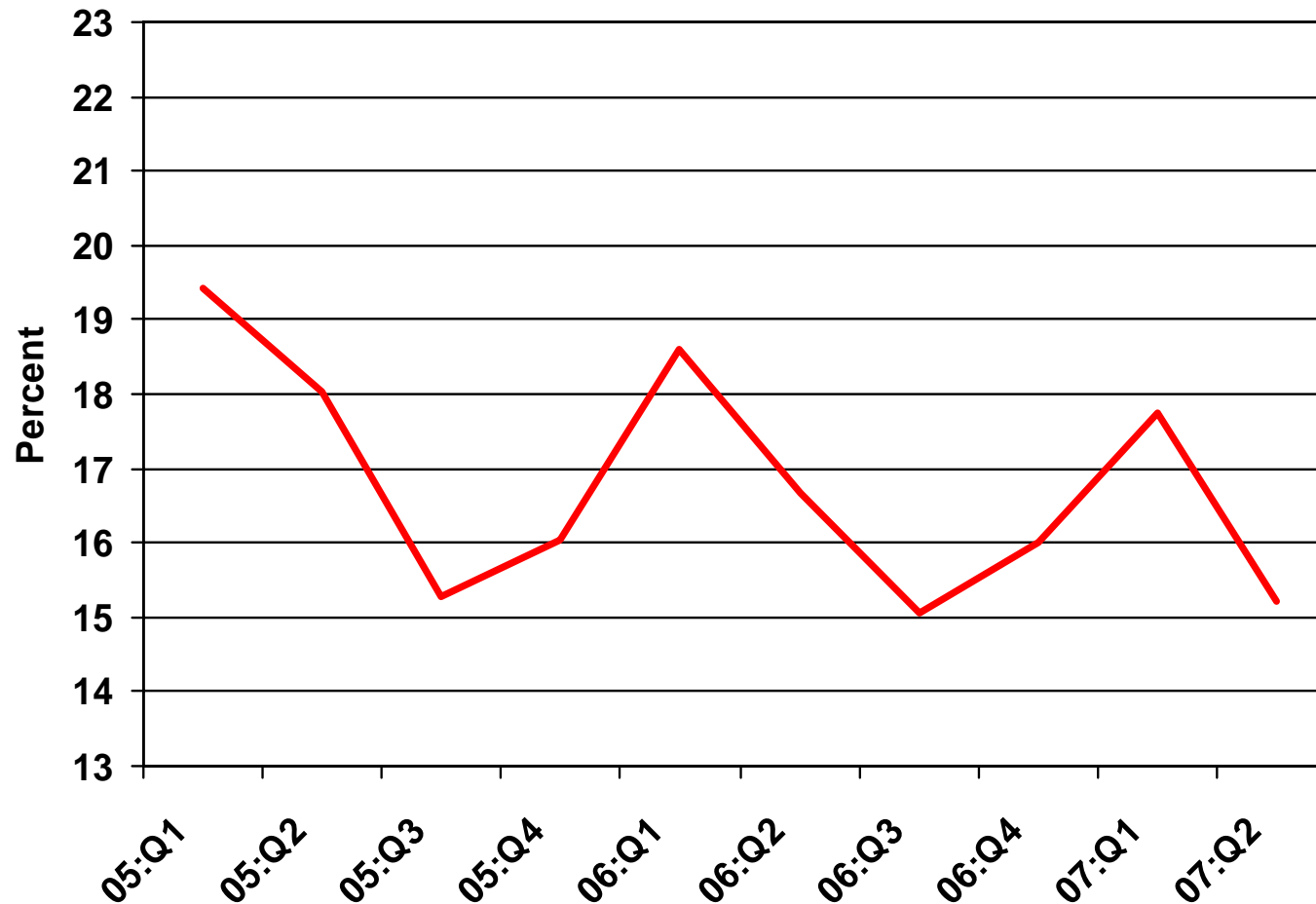
- ▶ Concludes that corporate bond transaction costs fell after prices were disseminated on TRACE.
- ▶ Looks only at transaction costs, not volume or other measures of liquidity.
- ▶ Imputes bid-ask spreads, since there really are not any.

Stock and Corporate Bond Trading Volume Daily Average per Month



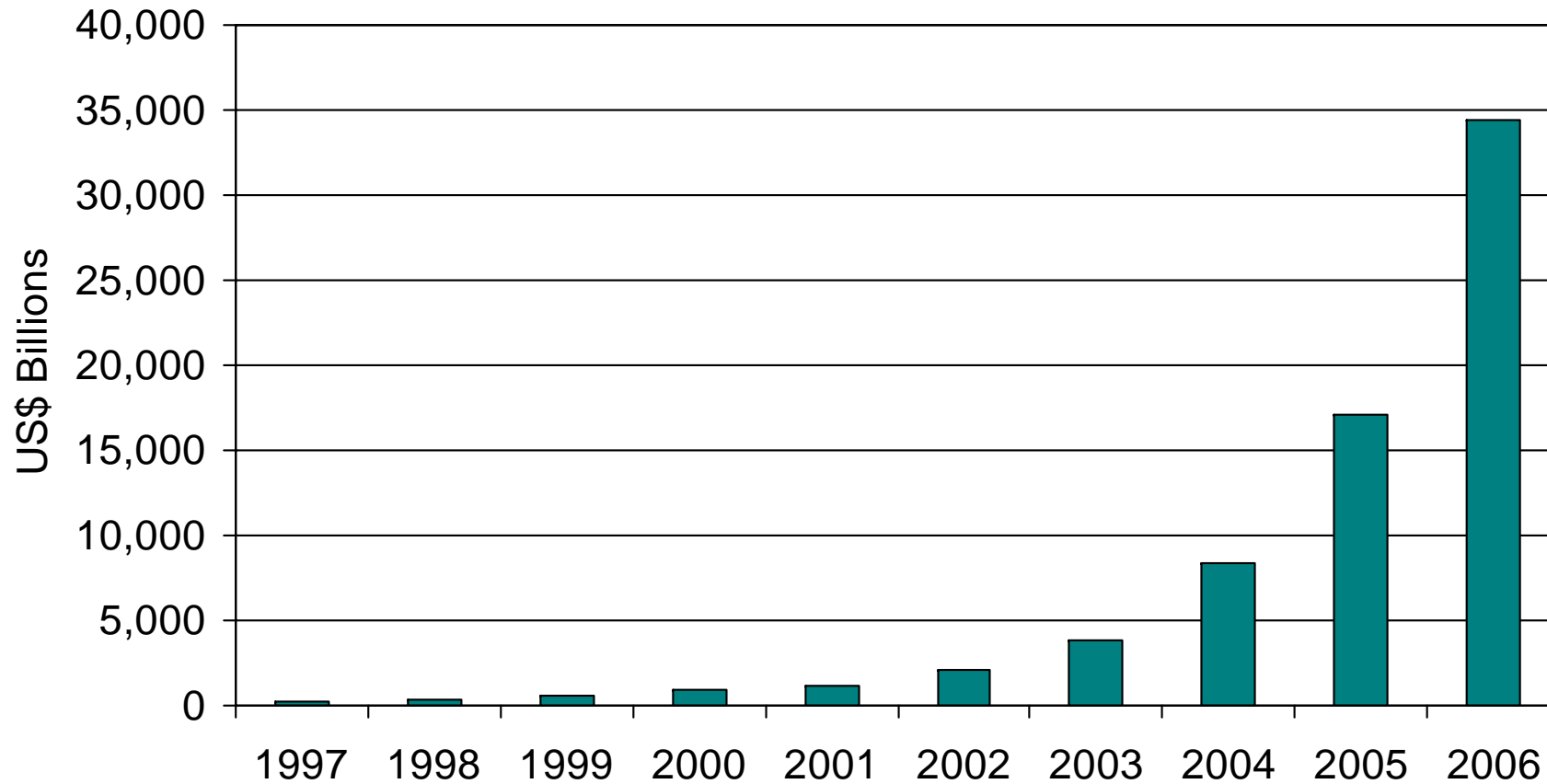
Sources: FINRA, NYSE, NASDAQ and AMEX

Corporate Bond Trading Volume: Quarterly Turnover as a Percentage of Outstanding



Sources: FINRA, Federal Reserve Board and Securities Industry and Financial Markets Association

Credit Default Swaps: Notional Principal Amount Outstanding



Sources: ISDA, British Bankers Association

NASD Notice to Members 05-77 (November 2005) states:

- ▶ Dealers must report to TRACE transactions in TRACE-eligible securities related to:
 - The exercise or settlement of options;
 - The termination or settlement of credit default swaps; and
 - Exercise, termination or settlement of other contracts that result in a bond transaction.

NASD Notice to Members 06-22 (May 2006) requests comment on disseminating via TRACE:

- ▶ Whether a trade was an interdealer or dealer-customer trade; and
- ▶ Whether the dealer was a buyer or seller.

NASD Rule Filing SR-NASD-2005-130 (November 2005) proposes including in TRACE:

- ▶ Unregistered debt securities that are otherwise TRACE-eligible;
- ▶ 144A securities; and
- ▶ Unrated securities; and
- ▶ Defining excluded “asset backed securities” as in the SEC’s Regulation AB.

“Mini” survey of high-yield bond investors.

- ▶ Conducted by Greenwich Associates August 20-30, 2007 during credit market correction.
- ▶ Interviews with 15 high-yield bond portfolio managers including 9 hedge funds, 4 asset managers and 2 insurance companies.
- ▶ Respondents had average high-yield assets under management of US\$3 billion and average annual high-yield trading volume of US\$3.7 billion.
- ▶ All respondents use TRACE to gauge the market. Most respondents also use vendor feeds and dealer quotes. A minority use pricing services and trading platforms.

Opinions of institutional investors are mixed at best.

- ▶ Most believe TRACE has compressed spreads (average response of 4.0 on a 1-5 scale).
- ▶ Most believe TRACE has had a negative effect on market liquidity (average response of 2.6).
- ▶ 54 percent believe TRACE has had no or negative overall effect on the high-yield market.
- ▶ 54 percent believe that TRACE has negatively affected dealers' willingness to commit capital or provide liquidity.

“On the one hand it is extremely beneficial in terms of price discovery and on the other hand TRACE has a negative impact on dealers’ willingness to make markets highly liquid.” (*Investment Manager*)

“There is no bid on bonds in distressed times. In the last two weeks it was tough to sell bonds.” (*Hedge Fund*)

“For illiquid issues... you are trying to trade at a certain price level and you have an odd lot print put up...that then establishes the next level. If it is a sale, that becomes the next offer, and if it is a buy, it becomes the next bid side. It makes it less likely that guys will want to commit some capital on \$20 million of a \$150 million name.” (*Investment Manager*)

“Protecting widows and orphans at the expense of the institutional market is a bad thing. If you are trying to protect the guy trading a hundred thousand bonds, then okay. But he probably shouldn’t be doing that anyway – he should be investing in a mutual fund. The guys who are trying to get stuff done in size have absolutely been paralyzed by this.” *(Hedge Fund)*

“If I really have to think hard about this, maybe filtering the odd lots, that would be the biggest thing. And the odd lot stuff is a negative because it is all over the place.” *(Hedge Fund)*

“TRACE is a horrible thing. It is taking away liquidity. You can’t possibly expect dealers to commit capital to you any more because everyone immediately knows where the trade happened. It is literally a classic case of good intentions gone very, very bad. And now the impact is really, really negative because if you wanted to sell something in a market where there is instability and volatility, there is absolutely no reason for a dealer to commit any capital because it is impossible to get compensated for it. Basically it is a negatively convex opportunity for them. If they do everything right, then they can make a quarter of a point. And if they are wrong, they could lose 20 points. It is the worst thing ever to hit the corporate bond market. And as a customer, when I hear the word TRACE I get agitated. My view is that the dealers need to make money so that they are still standing to provide liquidity. And basically TRACE is one of the reasons why corporate bond liquidity has basically disappeared.” *(Hedge Fund Manager)*

“I have learned that investment banks have a lot of bathrooms because every time you call, the trader is in the bathroom.” (*Hedge Fund*)