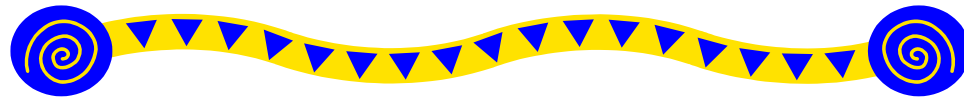


The Economy, Financial Markets Commercial Real Estate and Real Estate Indices



Robert H. Edelstein
University of California
At
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October 11, 2007

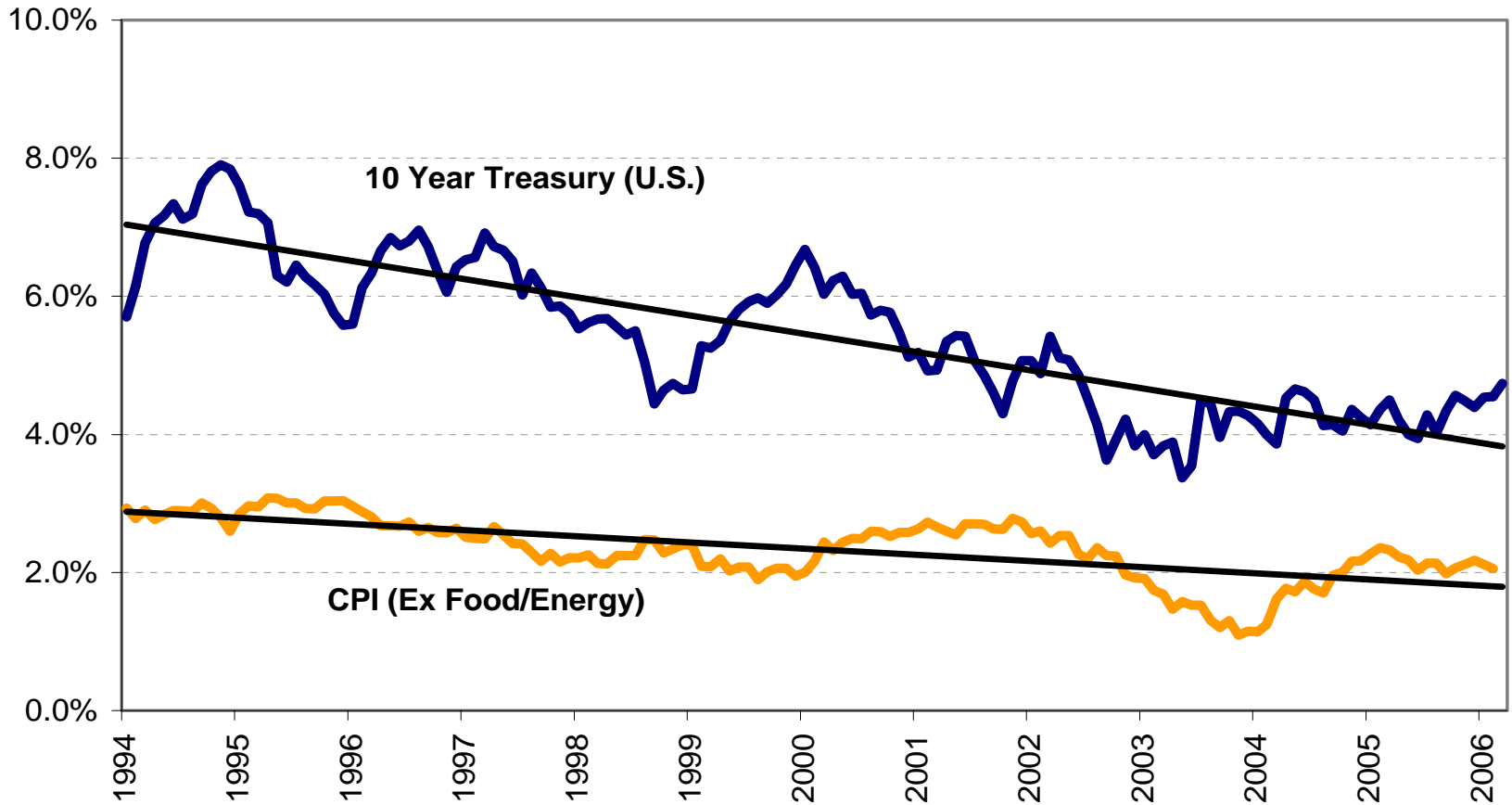
What Are The Fundamental Drivers for Commercial Real Estate Markets?

- Economic and Employment Growth
- Liquidity World-wide
- Relative Rates of Return
- Inflation Hedge
- Diversification
- Monetary and Fiscal Policy

What is Driving the Commercial Real Estate Market?

- World-wide Liquidity
- Capital is Yield Starved
- Capital Can be Skittish and Mobile

Interest Rates and Inflation: The World is Yield Starved

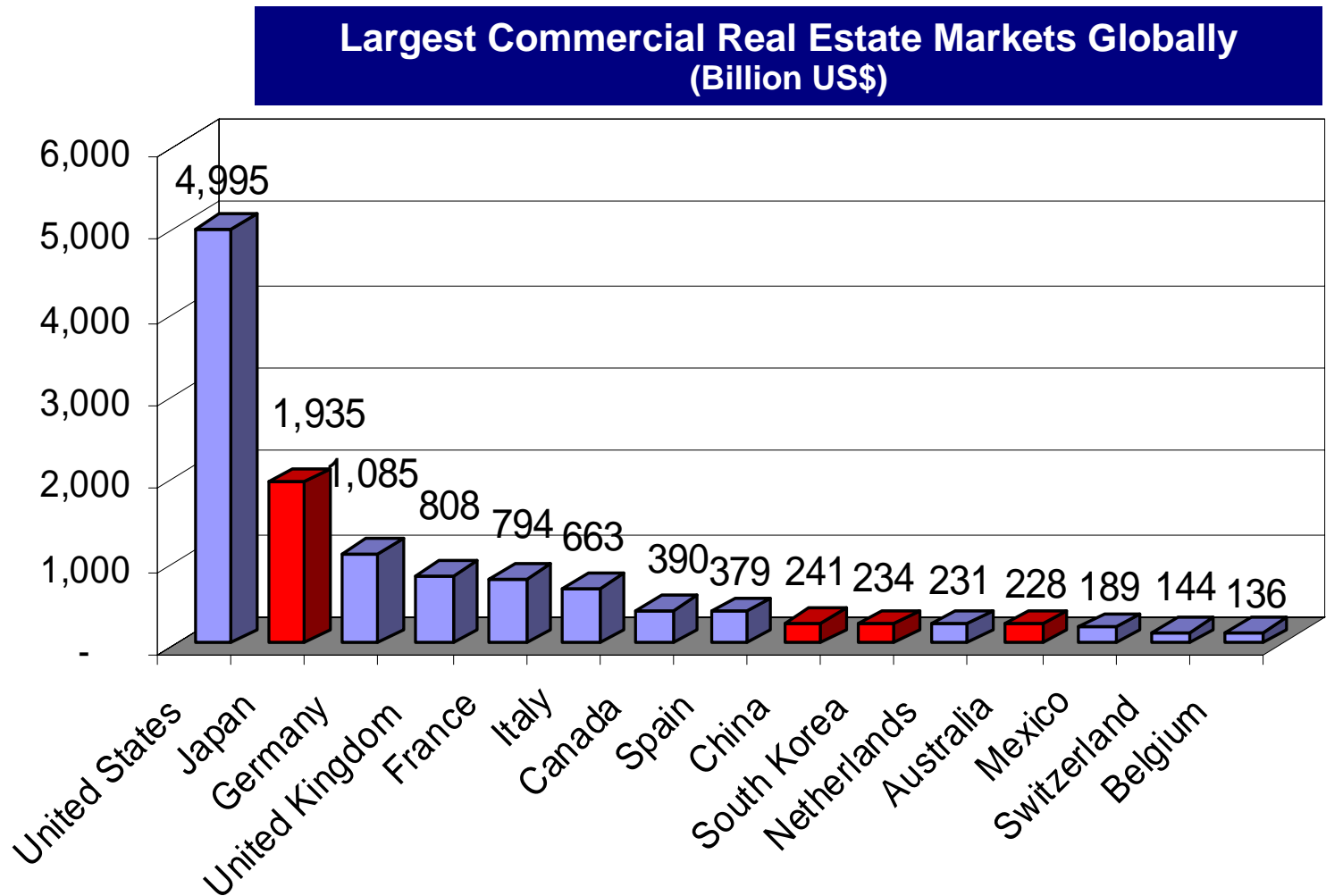


Size of Commercial Real Estate Capital Markets:

<u>Global Direct:</u>	\$15 trillion.
<u>U.S. Direct:</u>	\$5.3 trillion (w/Hotels) - \$100 bill. On side-lines.
<u>REITs:</u>	\$330 billion (Equity) – 19% per year growth.
<u>CMBS:</u>	\$170 billion Annual Issuance – 24% per year growth.
<u>Bank Loans:</u>	\$1.8 trillion Annual Origination (Commercial).
<u>Derivatives:</u>	\$5.4 trillion – Commodity – 52% per year growth.
<u>RE Derivatives:</u>	\$53-to-\$106 billion in 3-to-5 years (projected).

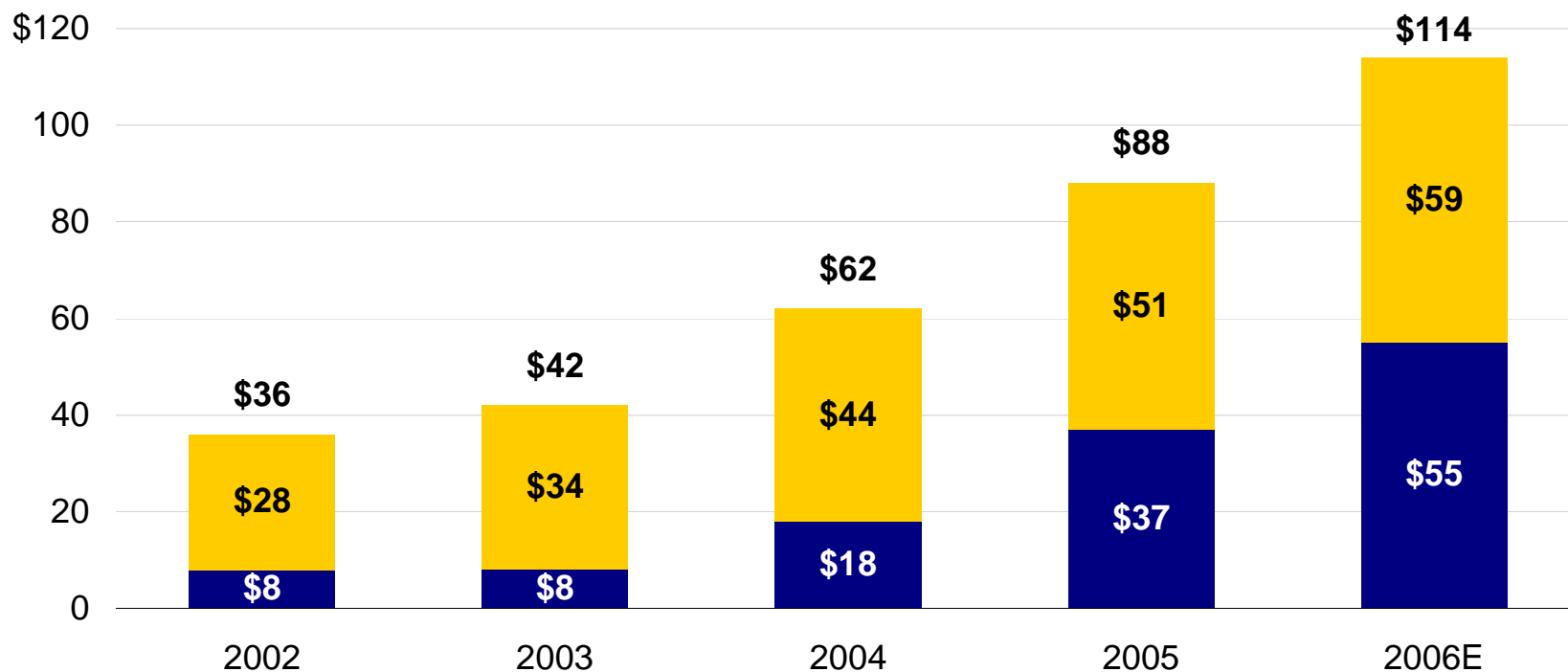
Largest Commercial Real Estate Markets

U.S. Accounts for About 35% of Global Share



Capital Availability: Over 200 new real estate focused funds were raised in the past two years

CAPITAL MIGRATION INTO U.S. REAL ESTATE (1)



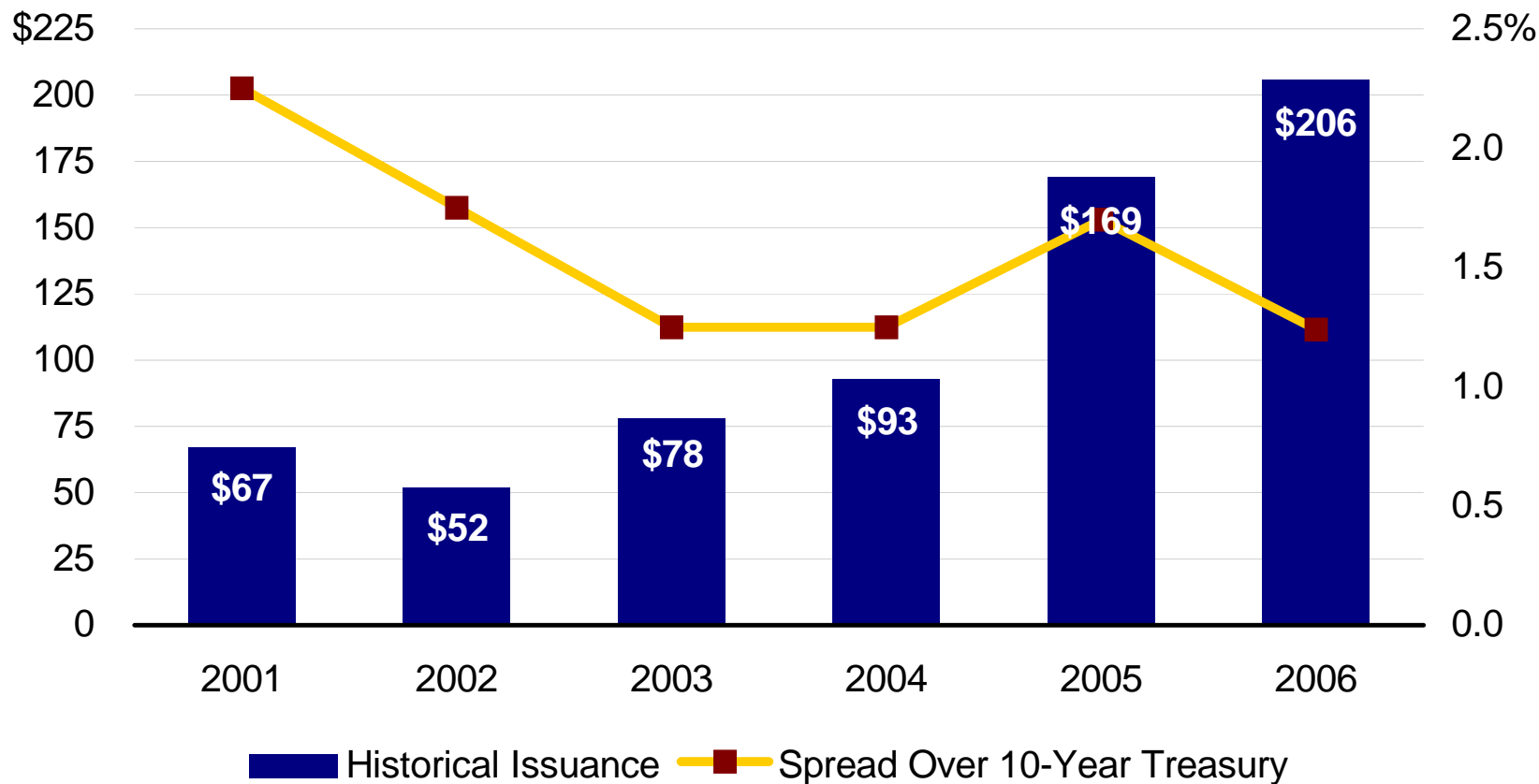
■ Real Estate Dedicated Private Equity Raised ■ New Pension Funds Dedicated to Real Estate

Note: All dollars in billions.

(1) As per Ernst & Young, *Private Equity Real Estate* magazine, and "2006 Plan Sponsor Survey," Kingsley Associates (published annually in February).

Real Estate CMBS Market Overview

HISTORICAL CMBS ISSUANCE (2)



Note: All dollars in billions.

(2) As per *Commercial Mortgage Alert* publication January 12, 2007.

How Can Sub-prime Affect the Economy and Commercial Real Estate?

- **Underwriting, Fees, and Secondary Market – The Profit Model**
- **Risk Contagion Effects**
 - New Construction
 - Real Estate Services
 - Equity Loans
- **Global Effects**
 - Risk Spread “Adjustments”
 - U.S. Consumption and World-wide Stock Market/Bond Market

Caveats

- How might the real estate markets change for the worse?
 - U.S. “precipitated” world recession
 - Consumer death by a thousand pricks
 - Fewer and smaller equity cash outs
 - Energy costs on a secular rise
 - Wage growth < Inflation
 - AMT
 - U.S. household and some financial institution balance sheet troubles
 - Current account imbalance
 - Unraveling of real estate credit
 - Geopolitical risk



Caveats (con't.)

- **Unanticipated jumps in interest rates would take wind out of real estate's relative “out-performance.”**
 - Debt swollen environment handcuffs economy.
 - Shift in investor sentiment away from the real estate asset class.
 - Current perceived real estate demand increase is optimistic, and may lead to missed proformas.
 - Any unanticipated system stress is amplified due to securitization and leverage.



Are Commercial Real Estate Indices Ripe for the Marketplace?

- Real Estate Securitization is an Inexorably Sea Level Change
- Enormous Stores of World-wide Wealth Seek Real Estate Based Investible Assets

Why Are Real Estate Indices Emerging Now?

- Timely Availability of “Transparent” Property Valuation Data
- More Accurate, Reliable Data Processing Systems

Real Estate Derivative “Potential”

- **Buy Side**

- Pension Funds and Other Financial Institutions
- Foreign Investors
- REIT's
- Portfolio Investors
- Hedge Funds/Speculators
- High Net Worth Individuals

Real Estate Derivative “Potential”

- **Sell Side**

- Lenders
- Institutions with Real Estate
- Borrowers/Owners/Investors
- CDO's/CMBS “Managers”
- Hedge Funds & Speculators
- REIT's
- High Net Worth Individuals

Summary

- Commercial Real Estate Indices could create a set of needed industry benchmarks.
- R.E. Indices can be used to generate substitutions for direct investment as well as derivatives to meet the needs of all types of investors.