



What Lies Ahead?

By

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Credit as Defined by Webster

Credit. L. *Creditom*.....“Something entrusted to another, loan...”

Source: Webster's Collegiate Dictionary

How Bad Can It Get? Simple Arithmetic!

	<u>Office</u>	<u>Industrial</u>	<u>MH</u> <u>(Units)</u>	<u>Retail</u>
Vacant Stock (%)	465M (13.4)	1.4M (17.5)	737M (5.2)	158M (9.8)
Pipeline	108M	131M	272M	19M
Absorption 2001-2002	-108M	-197M	26M	7M
Worst Case Vacancy Rate	19.2	13.2	7.2	9.9
Historic High Vacancy Rate (Quarter)	19.1 (1991 Q2)	12 (1989 Q3)	6.8 (2003 Q4)	10 (2002 Q4)

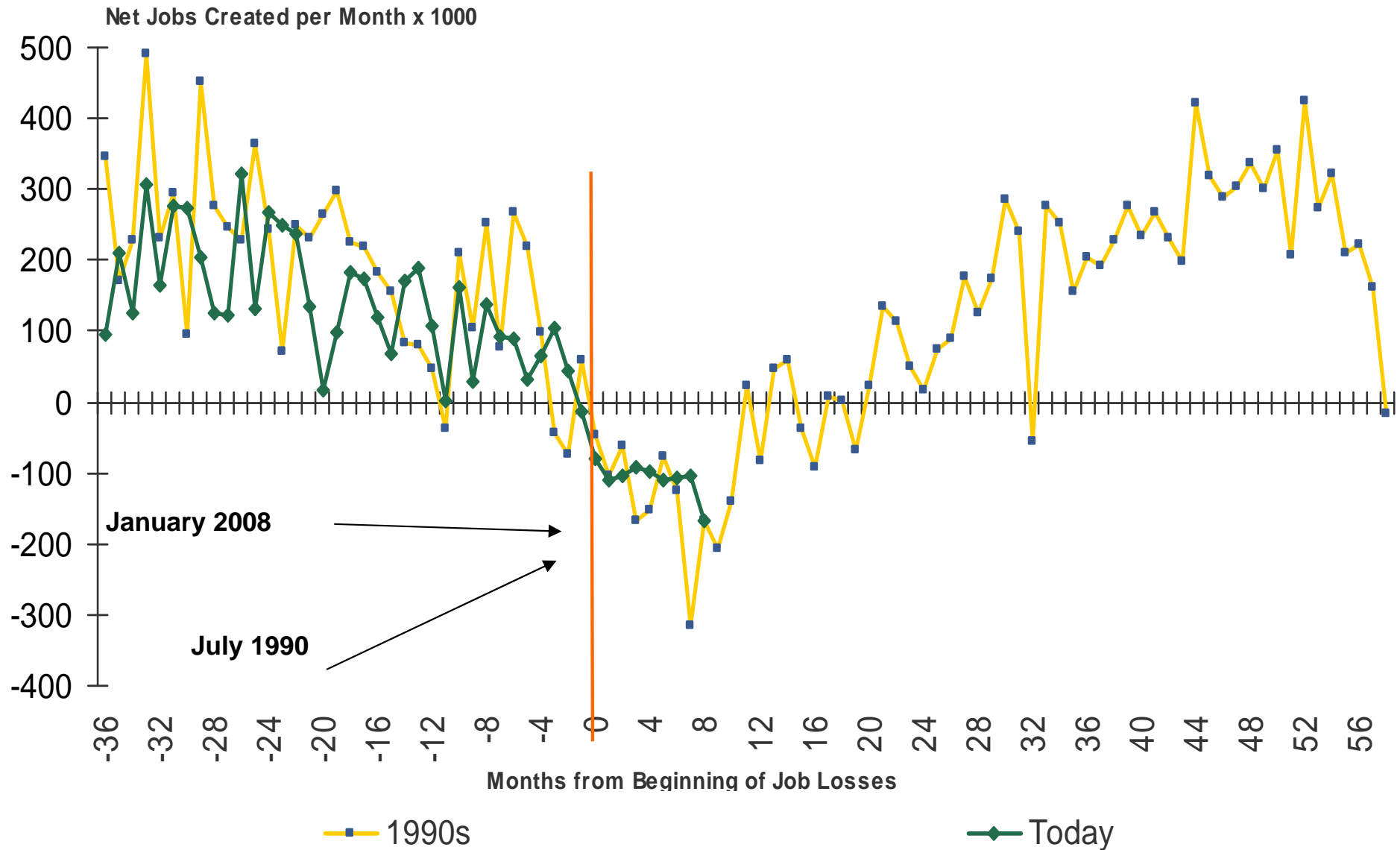
Source: CBRE Torto Wheaton Research, Outlook XL, Winter2008

CBRE/TWR Econometric Model

1. $MSTOCK_t = MSTOCK_{t-1} + MCOM_t$
2. $SSTOCK_t = SSTOCK_{t-1} + SCOM_t$
3. $VAC_t = [VAC_{t-1} \times MSTOCK_{t-1} + MCOM_t - ABSt] / MSTOCK_t$
4. $OCCUP_t = MSTOCK_t * (1 - VAC_t/100) + SSTOCK_t$
5. $ABSt = \beta [EMP_{t-b,c}, MSTOCK_t, RENT_{t-b}, SSTOCK_t, VAC_t] - SCOM_t$
6. $MCOM_t = \beta [STOCK_{t-c}, RENT_{t-b,c}, VAC_{t-c}, EMP_{t-c}]$
7. $RENT_t = \beta [VAC_{t-d}, -ABSt-d, RENT_{t-1}]$

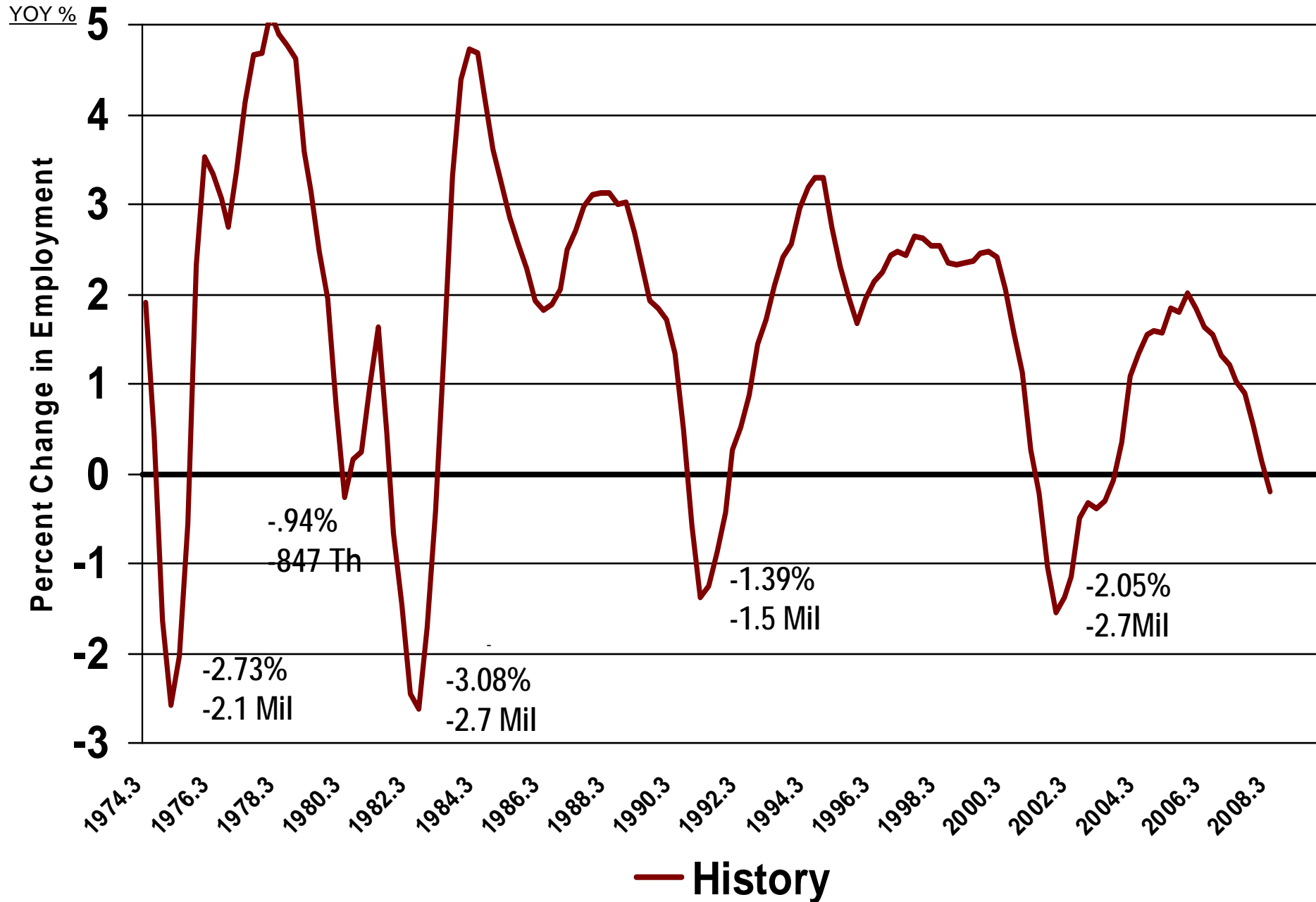
Source: CBRE/TWR Office Methodology and Data Appendix

September Employment: First Truly Bad Report



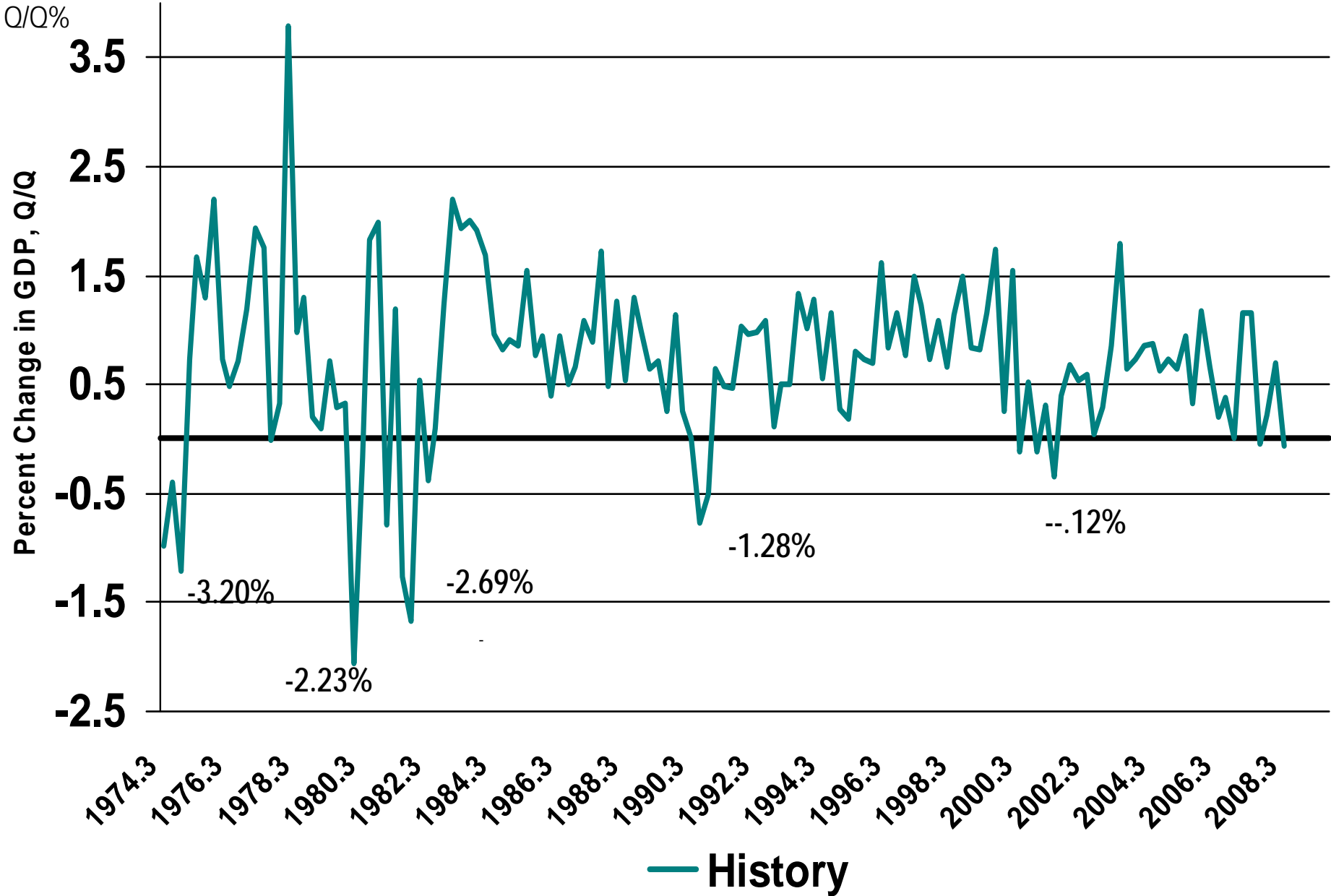
Sources: CBRE/Torto Wheaton Research, Bureau of Labor Statistics.

US Job Losses In Previous Cycles



Source: CBRE Torto Wheaton Research, Winter 2008

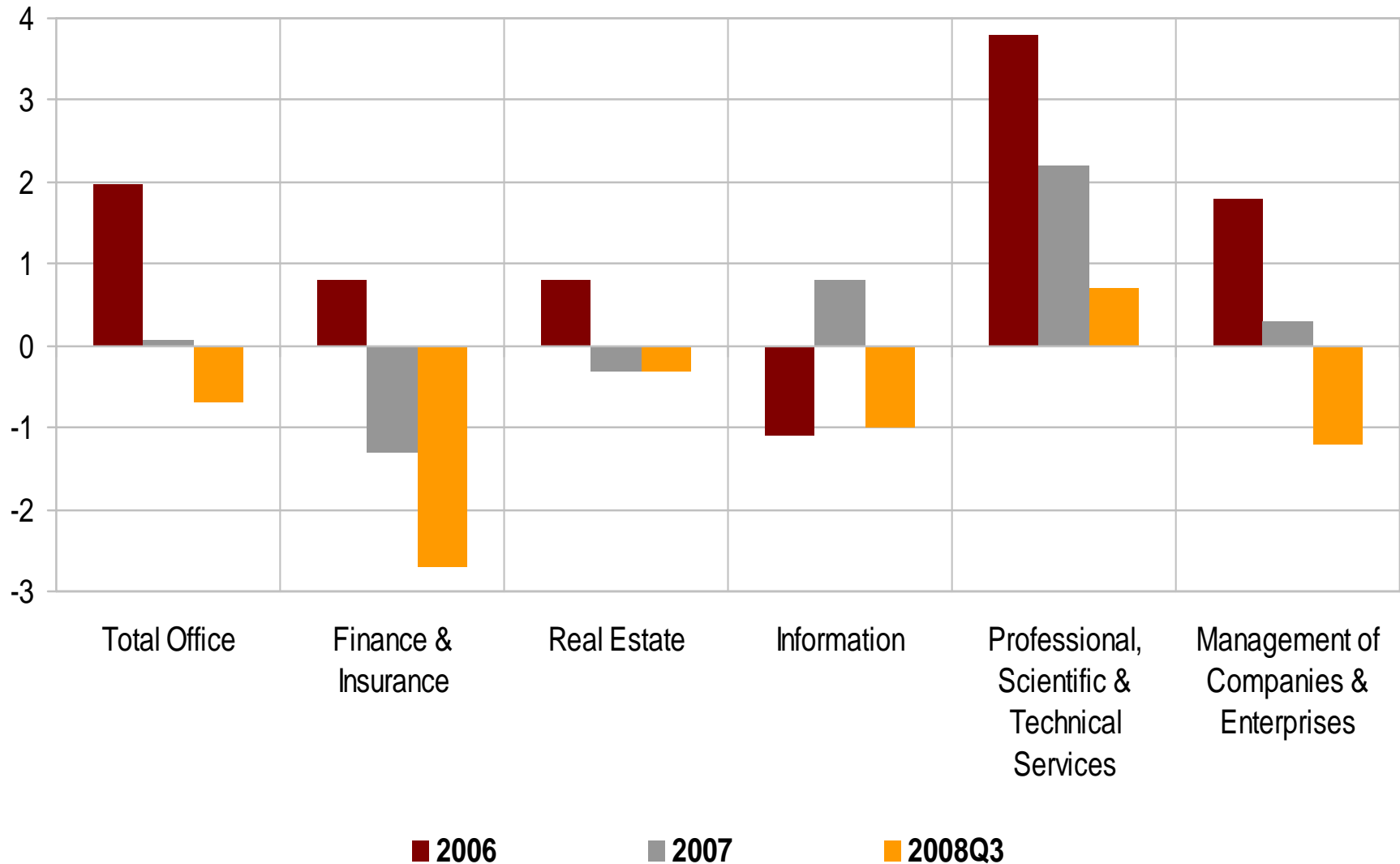
GDP Changes in Previous Cycles



Source: CBRE Torto Wheaton Research Winter 2008

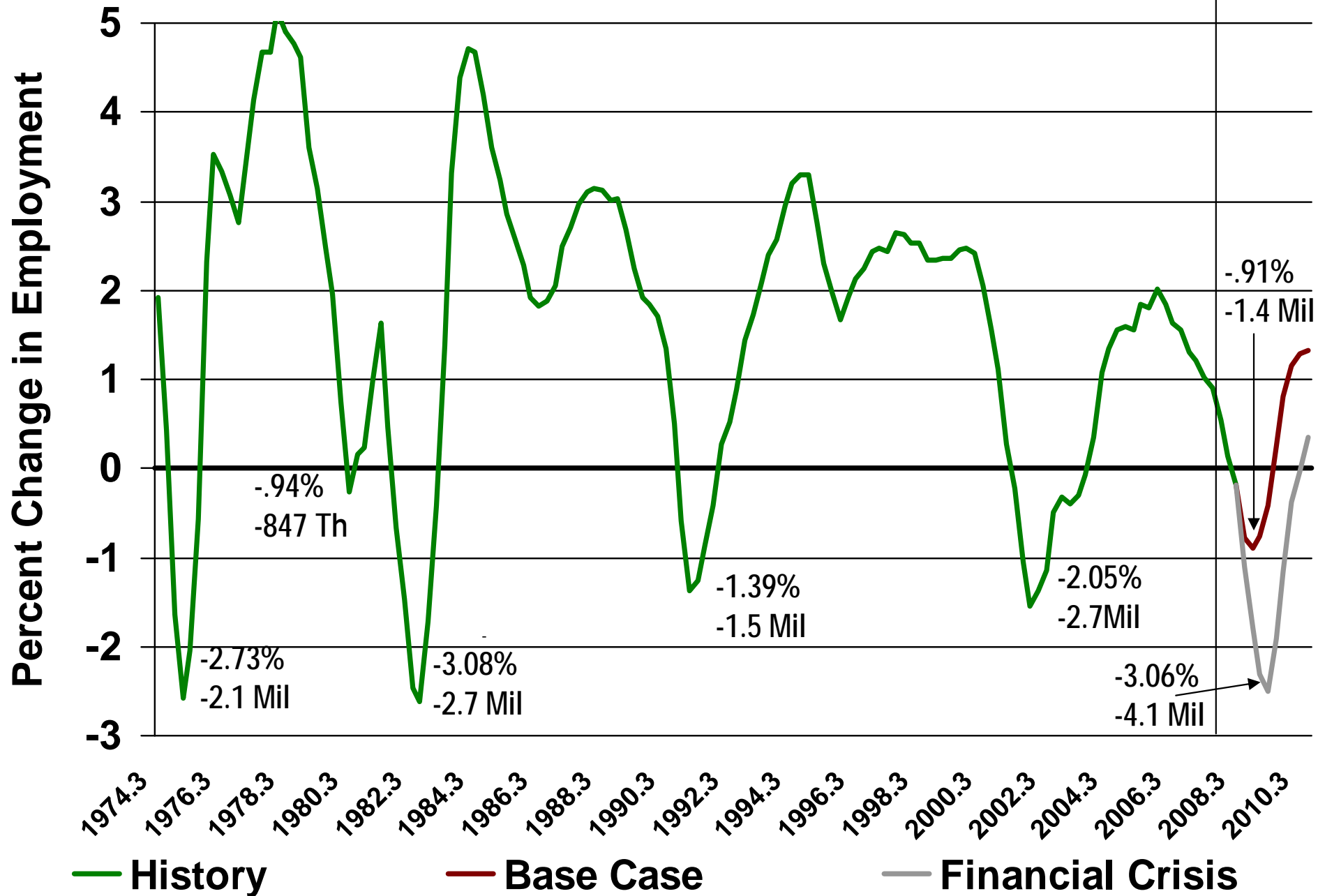
Slowdown Across The Board for Office Jobs

Key Office Employment Categories, Y/Y % Change



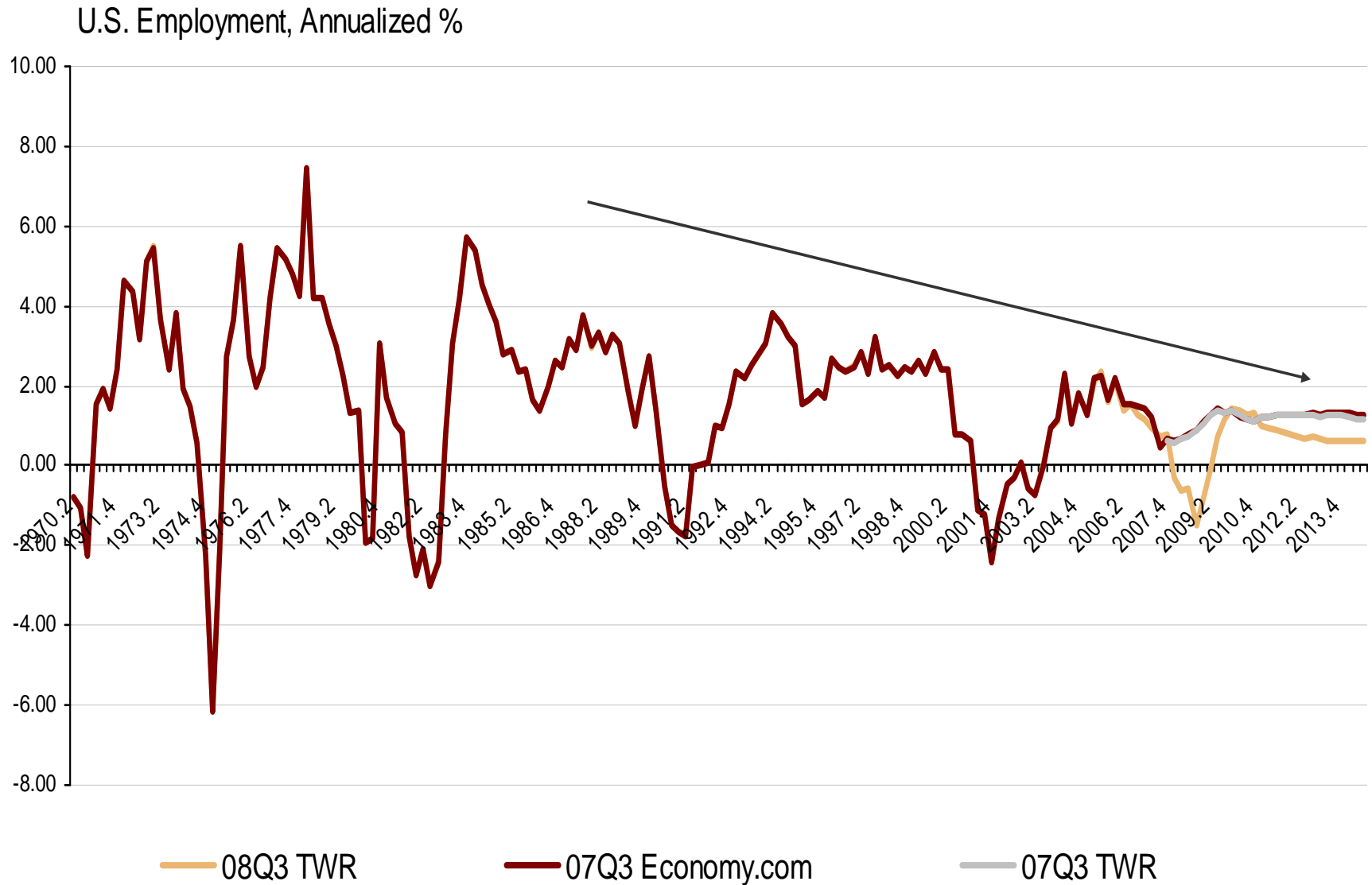
Sources: *Economy.com*, *Torto Wheaton Research*.

US Job Loses In Previous Cycles vs. TWR Forecast



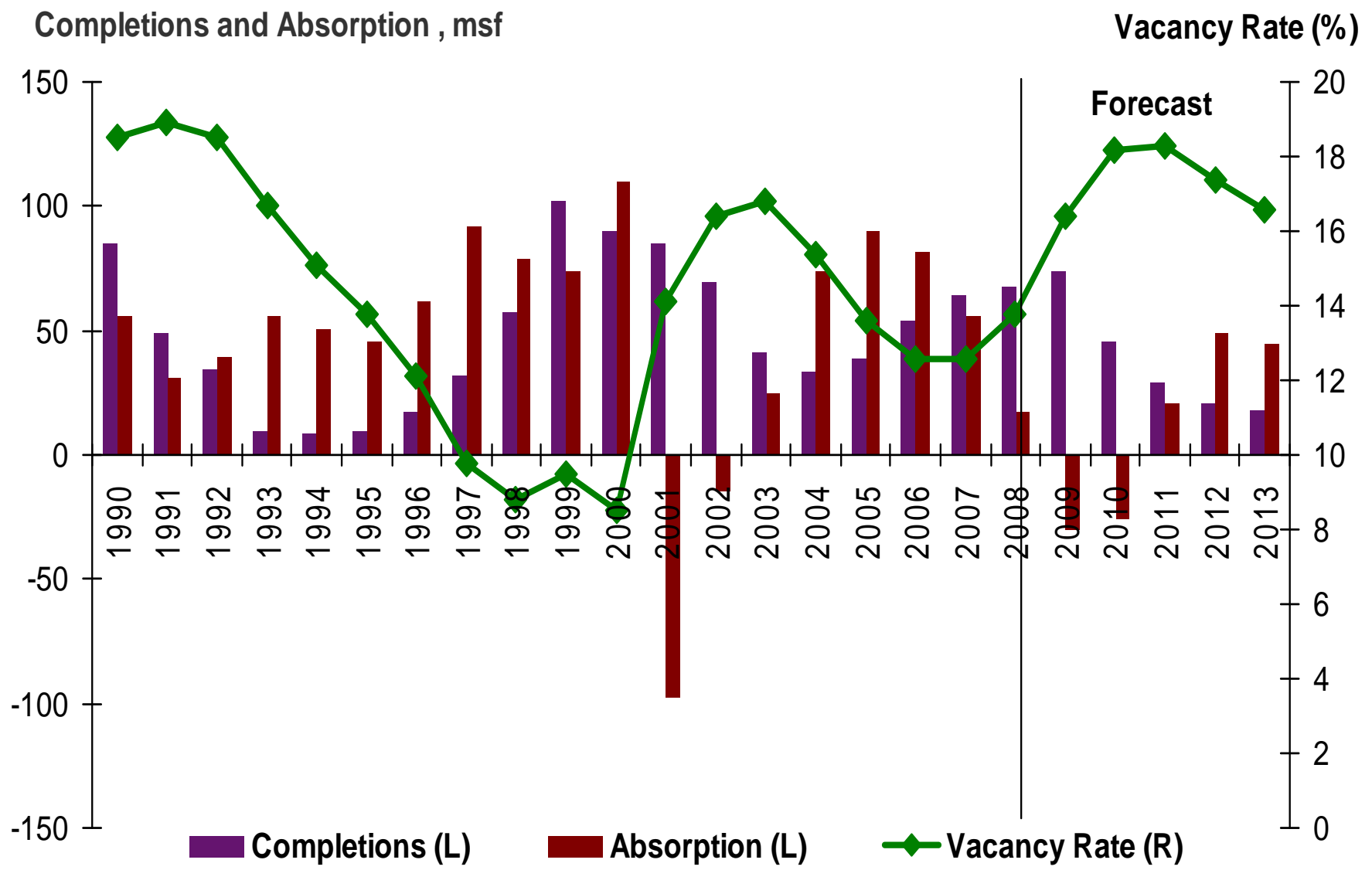
CBRE Torto Wheaton Research Winter 2008

U.S. Job Growth: the Long View!



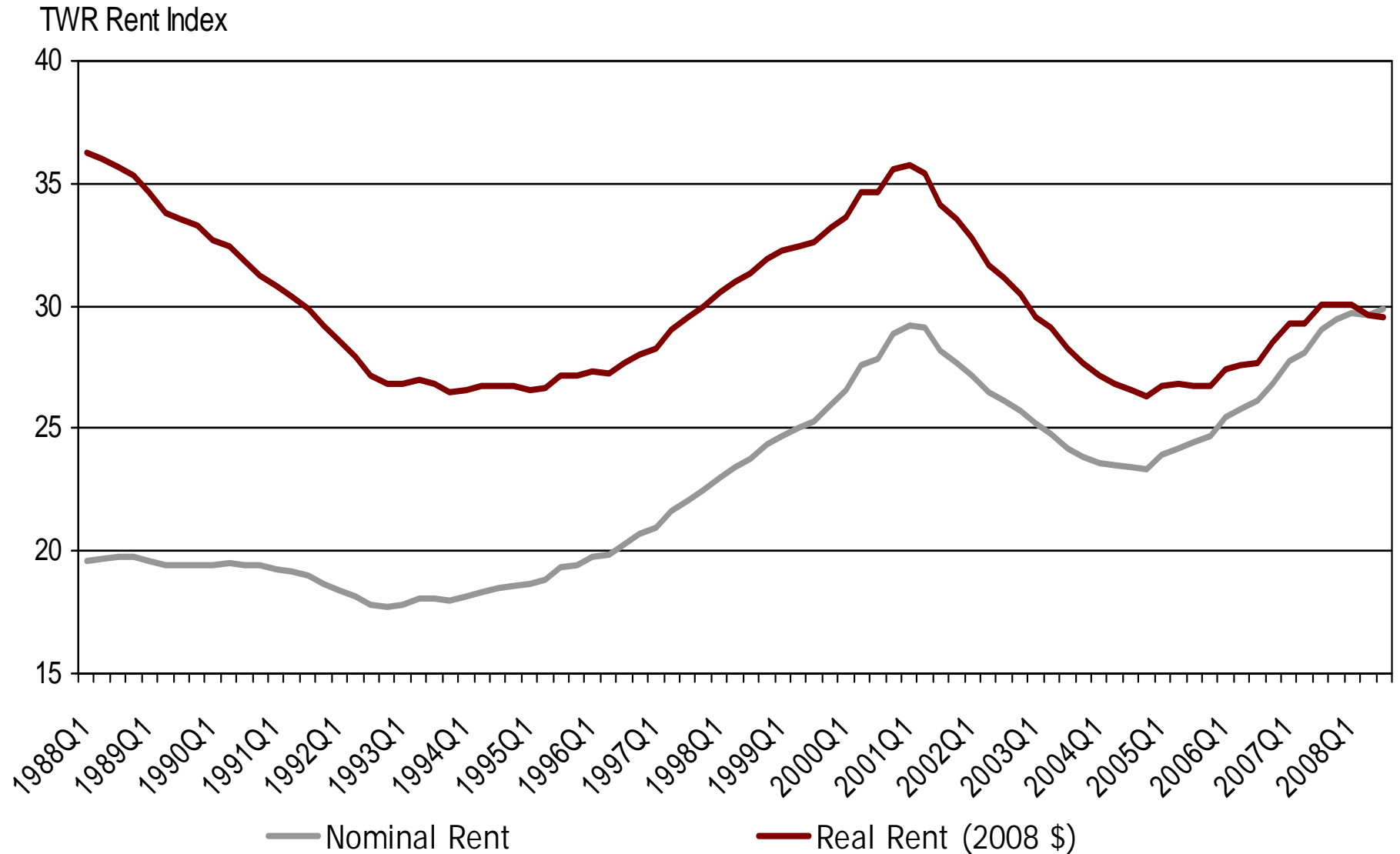
Sources: *Torto Wheaton Research, Economy.com.*

Demand-Side Woes Drive Office Outlook



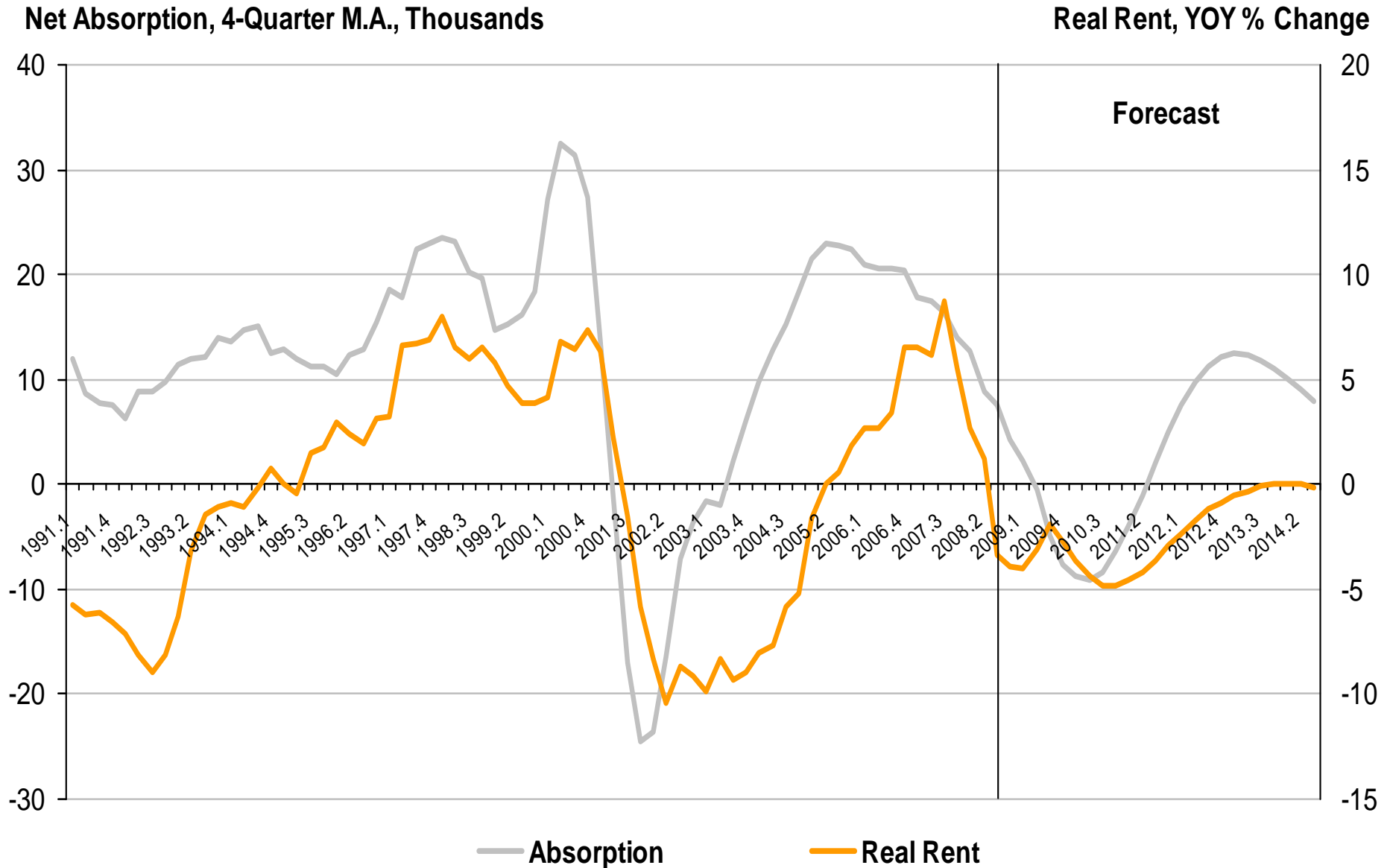
Source: TWR Office Outlook XL, Winter 2009.

Putting Office Rent Growth Into Perspective



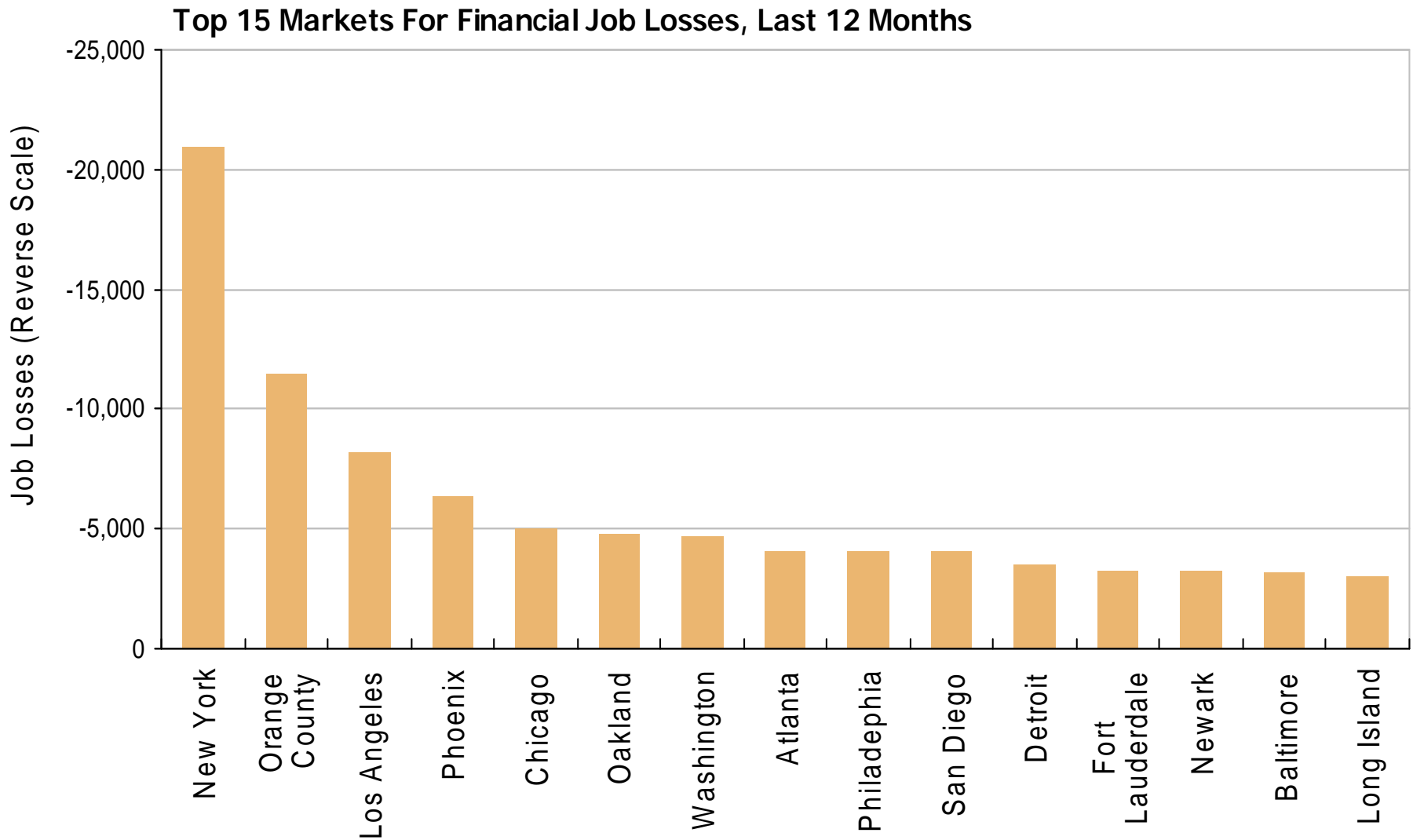
Source: TWR Office Outlook XL, Fall 2008

Weak Demand Leads to Real Rent Declines



Source: TWR Office Outlook XL, Winter 2009.

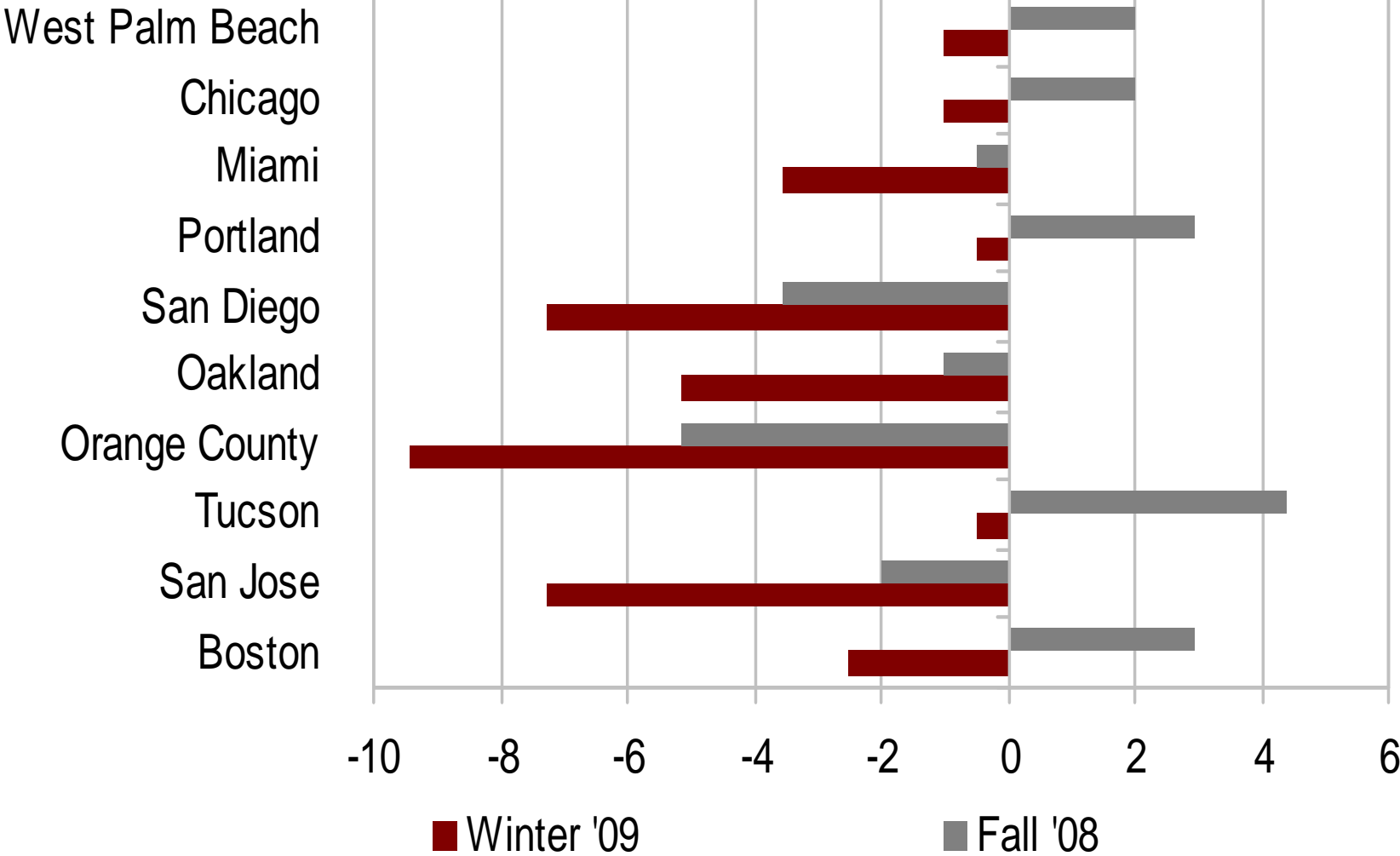
Job Losses Mount in Financial Services



Sources: TWR Office Outlook XL, Winter 2009.

Office Rent Growth Changes

Two Year Annualized Rent Growth leading to 2010q3, in %'s



Source: Torto Wheaton Research. Outlook Winter 08

Change in Economic Rent

	Office	Industrial	Retail
History 1990-91	-6.05%	-6.4%	N/A
History 2001-02	-21.12%	-8.5%	5.1%
Base Case 2008-09	-5.19%	-1.4%	2.8%
Financial Spiral 2008-09	-13.09%	-6.06%	2.6%

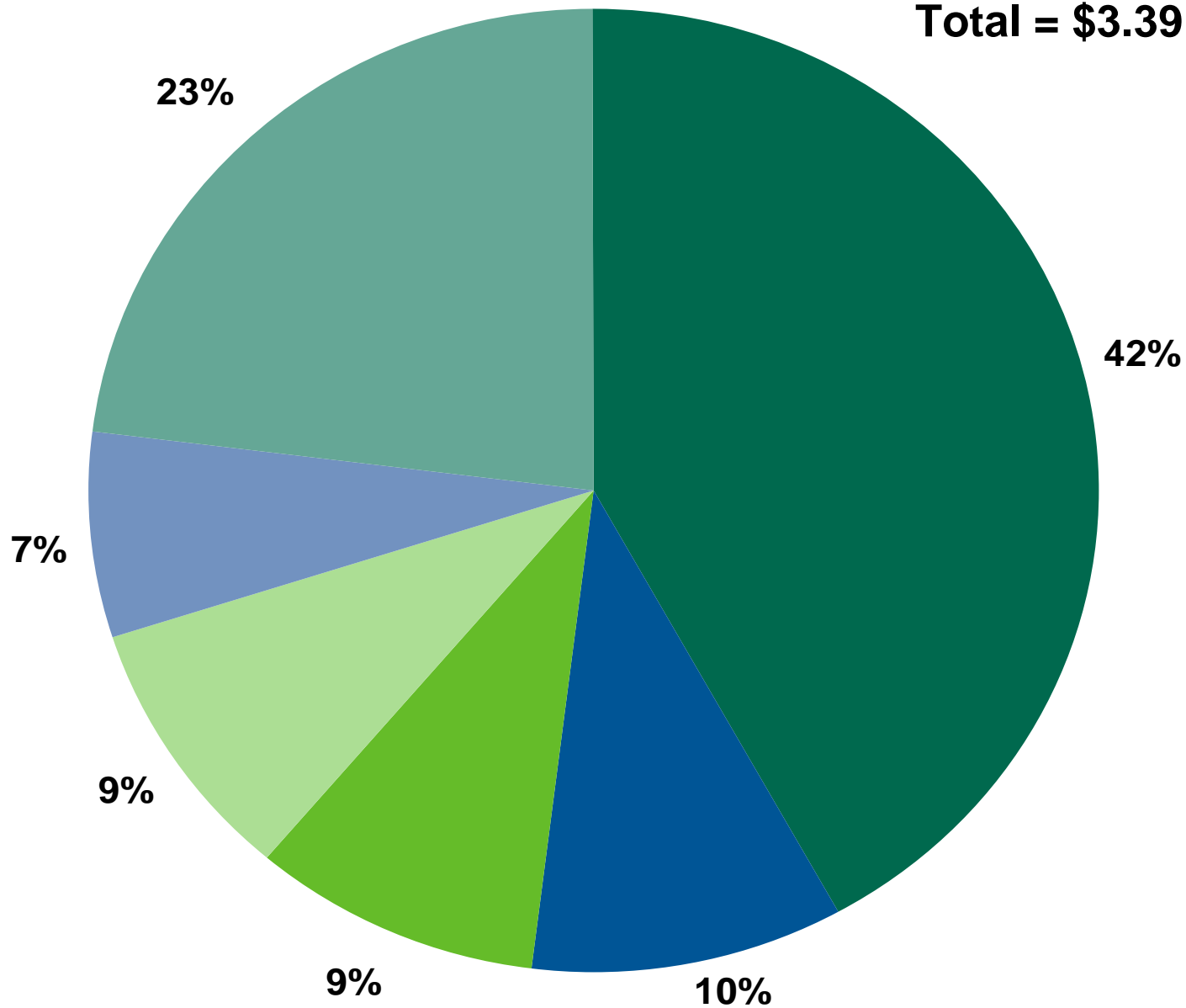
Source: *CBRE Torto Wheaton Research Outlook XL, Winter2008*



What Lies Ahead for Capital Values?

U.S. Commercial & Multifamily Outstanding Debt By Type Of Lender

Total = \$3.39 Trillion



Commercial Banks

Other

Life Insurance Companies

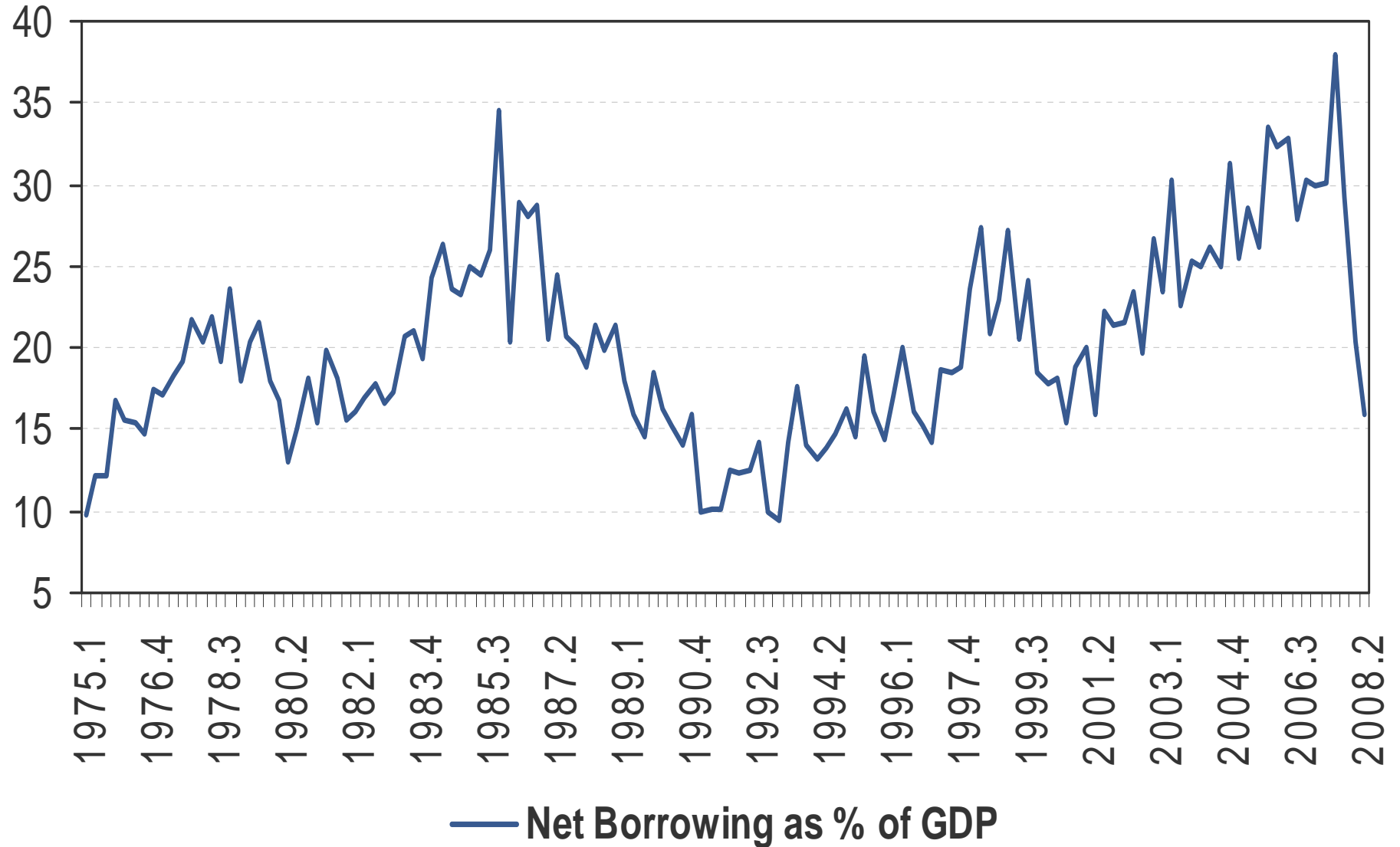
Gov't Sponsored Enterprises

Savings Institutions

ABS Issues (CMBS)

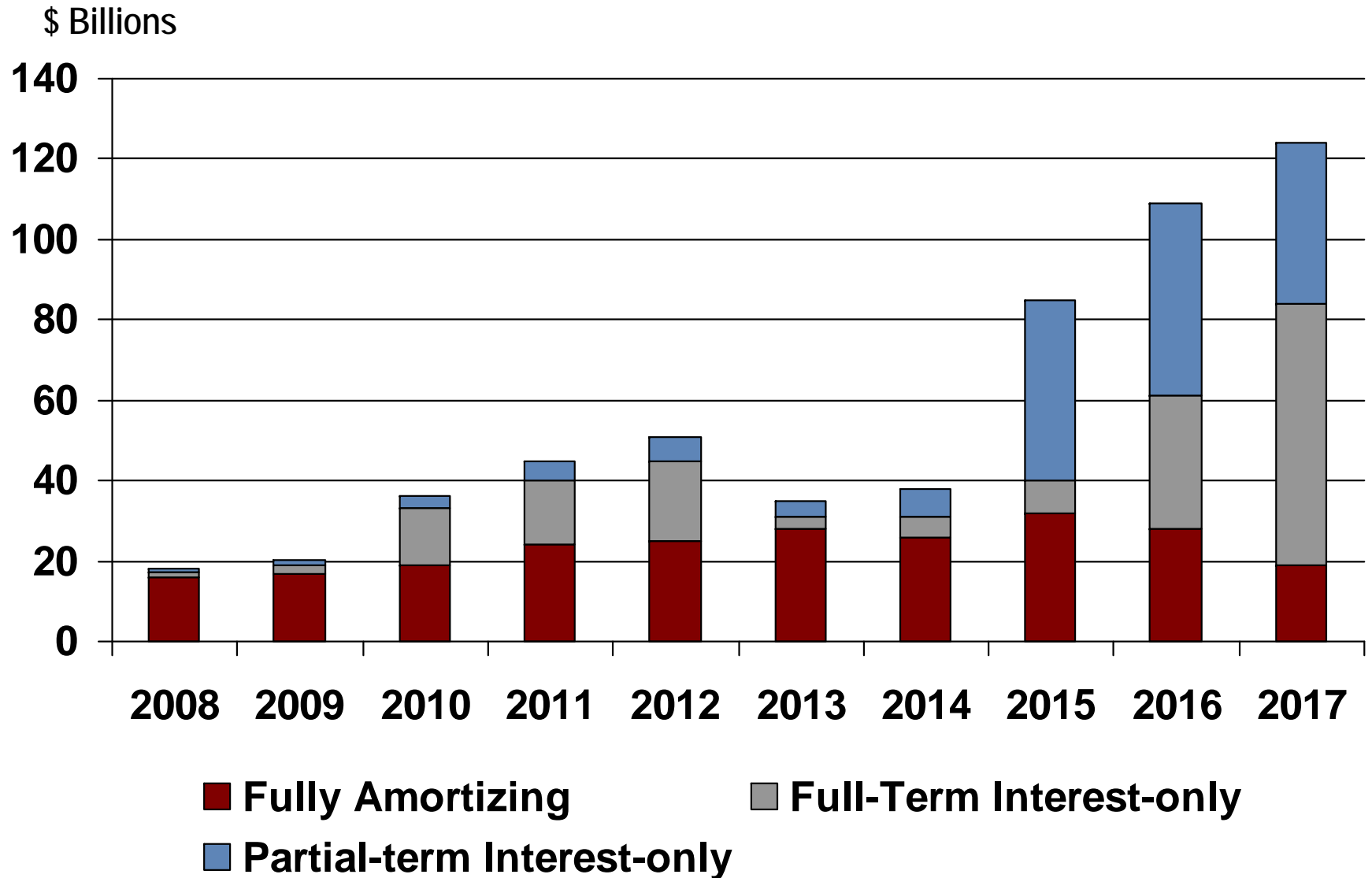
Lending Has Shut Down Very Quickly

Net Borrowing and Lending as % of GDP



Source: Federal Reserve.

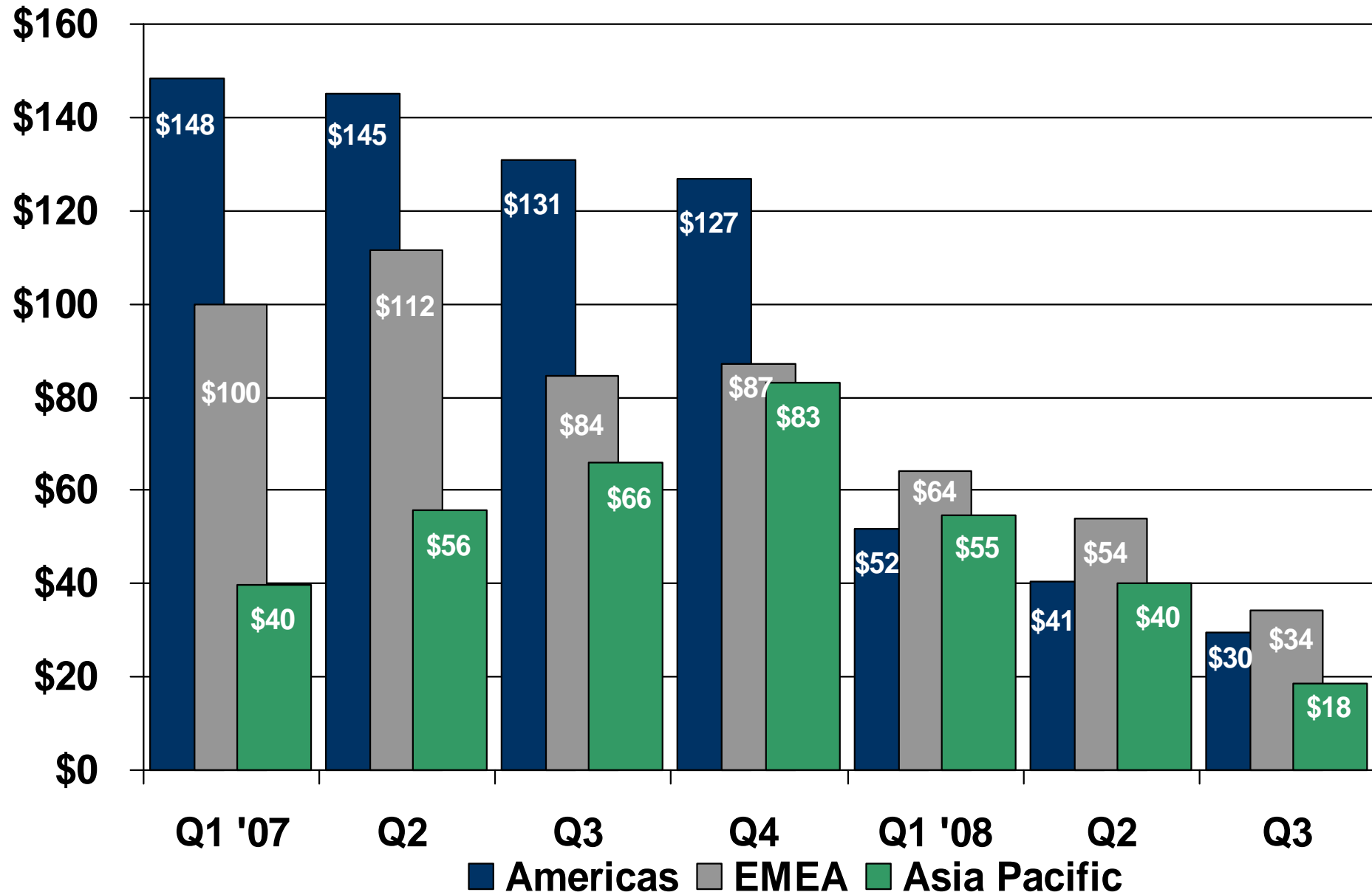
Fixed-Rate CMBS Loan Maturities



Source: CBRE Torto Wheaton Research, Summer 08

Quarterly Sales Volume

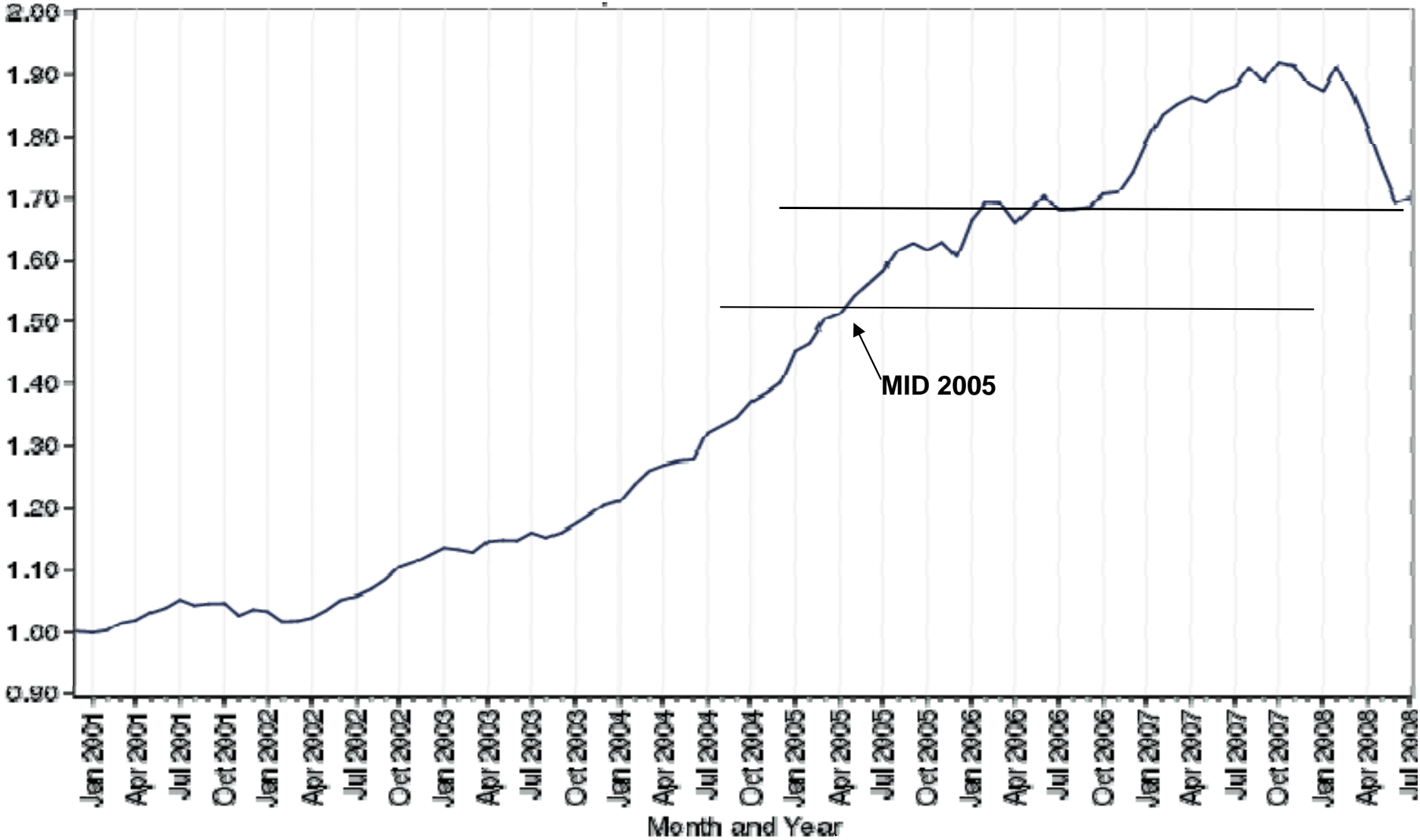
Billions



Source: Real Capital Analytics, August 2008

How Far Down?

All Properties: National Index



Source: MIT Center for Real Estate and Real Capital Analytics



Thank you

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