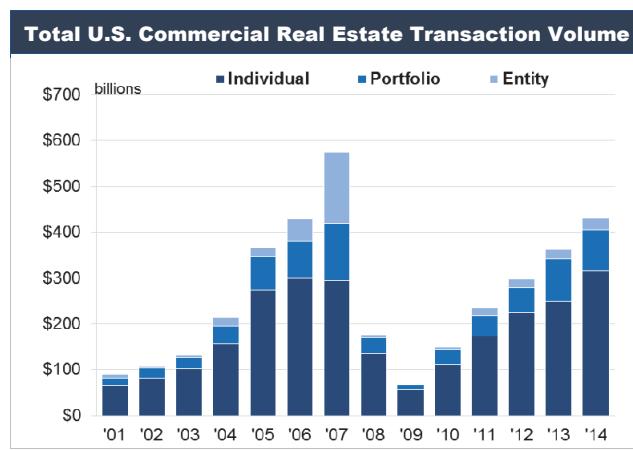


**PCCP Market Commentary**  
**Looking in the Rear View Mirror**  
**Fourth Quarter 2015**

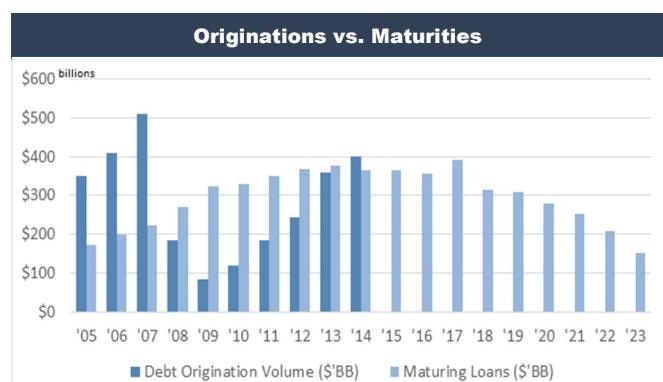
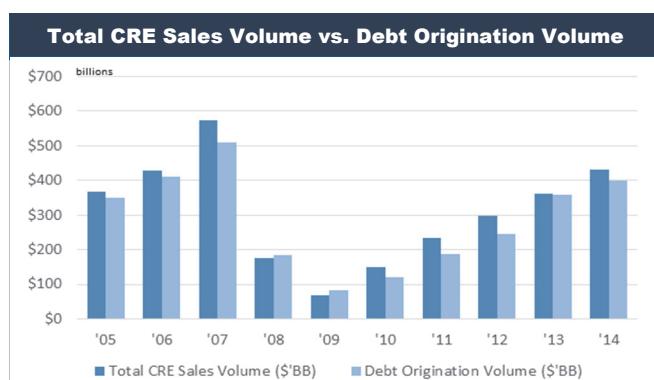
The past is not indicative of the future, but history does repeat itself.

10 years is a magical number in the real estate business. Many investors analyze their returns over a hypothetical 10-year hold, most standing loans on commercial real estate have a 10-year term, and most closed-end funds have a 10-year life. Many commercial leases have 10-year base terms. At the end of the 10-year cycle, portfolios are culled and rationalized, loans are refinanced, funds are liquidated, and a whole new crop of tenant improvements and capital expenditures is needed to attract or retain tenants. While we spend most of our time in commercial real estate looking forward, analyzing possible growth in demand, rents and prices, we think it's appropriate, now and then, to look to the past for indicators regarding the pressures that portfolios are under today.

It's 2015. For the 10-year cycle in commercial real estate, we look back to the 2005-07 era to see what was going on. As those of us old enough remember (yes, there are people in the real estate business who started after the GFC!), the real estate business was very busy. Starting 10 years later, we are seeing the cycle begin to repeat itself. Excluding entity transactions (i.e., Equity Office) and portfolio transactions, 2014 transaction volume exceeded the prior peak.



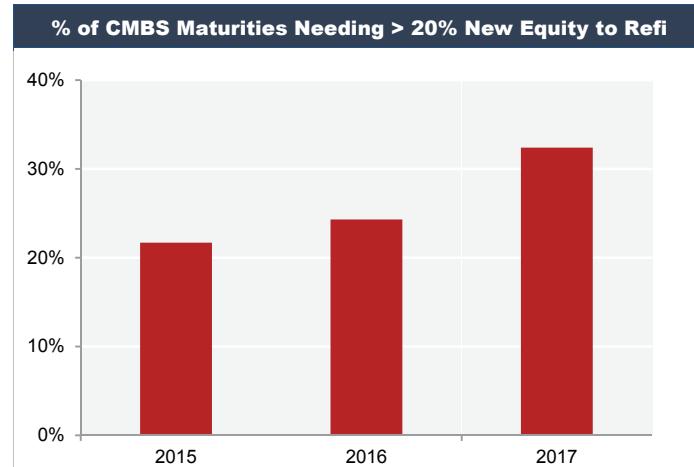
The first chart below shows sales volume and corresponding mortgage origination, which track very closely. The second chart shows that the 2005-2007 wave of financings now has its natural conclusion 10 years later:



The 2005-07 acquisition environment was aggressive, but it was matched by lending. High LTV loans were prevalent in CMBS pools, coupled with sub 1.0 debt service coverages and long-term interest only components. Research we have commissioned from Costar Risk Analytics shows the results of those underwriting metrics will become relevant again in 2015-17.

As the table below demonstrates, 1 in 5 CMBS loans maturing this year will need at least 20% more equity to refinance and the ratio increases to almost 1 in 3 by 2017:

Just for kicks, we took a look at fundraising during the same period. Let's start with core open-ended funds. In 2005, according to NCREIF, there were 14 funds with \$51 billion in NAV. Just two years later, those 14 funds controlled \$82 billion in NAV!<sup>1</sup> (NAV includes increases in value, which isn't strictly fundraising, but the data is directional.) For closed-end funds, according to Preqin, \$148.6 billion was raised between 2005 and 2007 for U.S. strategies of all types. As of August 2015, \$86.2 billion has been returned, leaving \$62 billion still outstanding almost 10 years later. Our educated guess is that the remaining properties in these closed-end funds are the troubled ones, with high leverage. If we assume 70% leverage on the remaining \$62 billion, that's over \$200 billion of real estate funded by investors expecting their money back over the next 3 years. These properties will change hands.



Source: Trepp (1Q15), CoStar Risk Analytics (1Q15)

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Looking forward, we are encouraged by the U.S. economy. However, we are closely watching aggressive capital flows into real estate, both domestic (over \$9 billion in entrance queues for open-end diversified core funds) and foreign (\$74 billion invested in U.S. commercial real estate in last 12 months, according to Real Capital Analytics). These capital flows may buoy up values ahead of fundamentals.

But we are not worried about transactional flow. There's inevitably some double counting in our numbers, but the absolute and directional volumes are driving our conclusion. Almost \$1.2 trillion in mortgages are coming due, many of which were made in the go-go years of 2005, 06 and 07. Many of those owners will sell or recapitalize, now that those assets are finally worth what the owners paid for them. \$200 billion of real estate is held by closed-end funds in liquidation. Billions more are held by open-end funds taking a pause to look at the quality of their real estate, most of which has aged 10 years since the peak (we certainly haven't built much new for them to buy). Our conclusion: Record deal flow for the next three years. Let's hope that doesn't mean 2008 will be replicated in 2018!

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<sup>1</sup> By the way, that number is 23 funds and \$133 billion as of Q1 2015, according to NCREIF. The actual amount of real estate is about 20% higher, after accounting for leverage.