

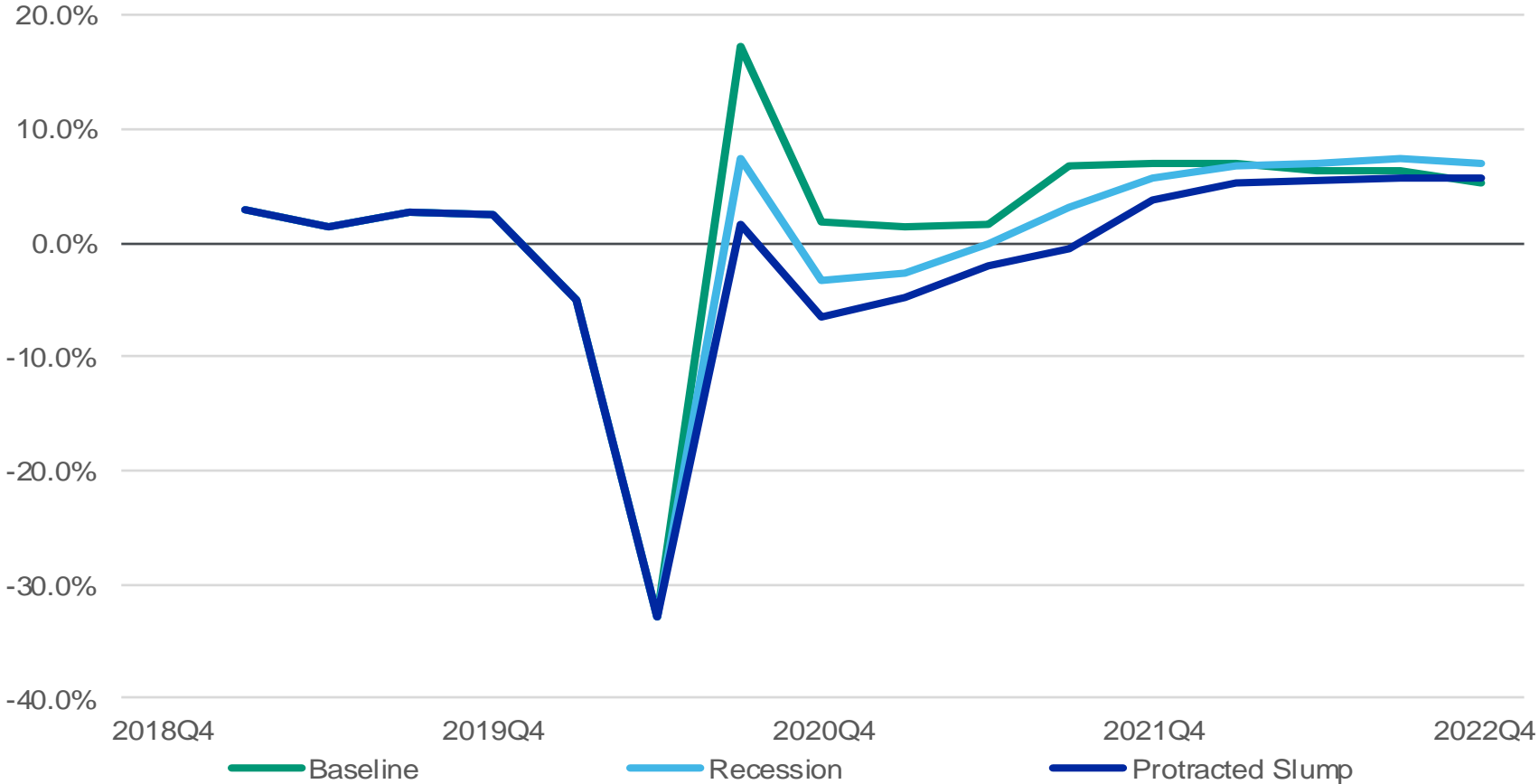
Distress in the CRE Lending Markets

Theory and Practice

An Historic Recession, An Unprecedented Time



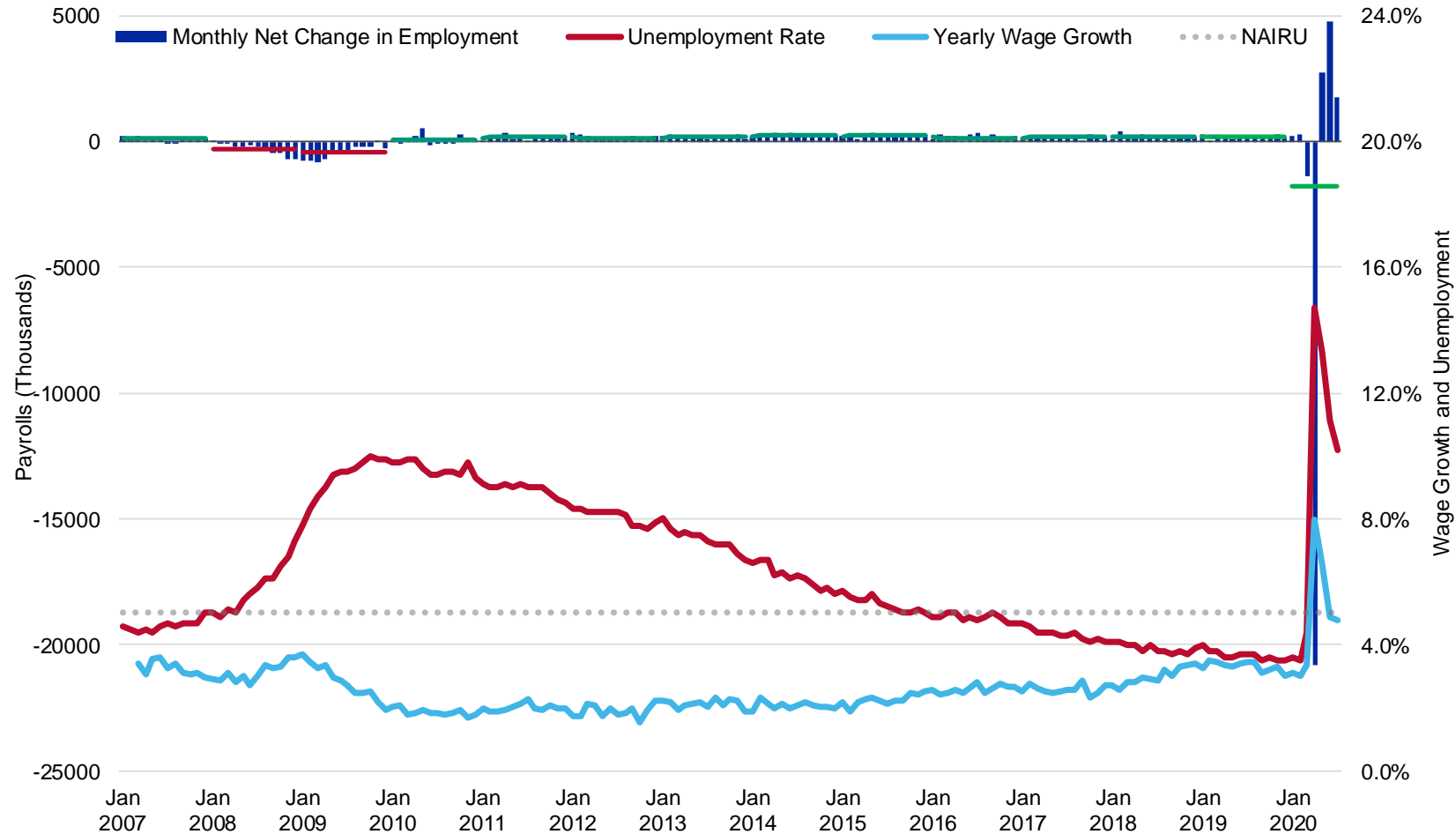
Real GDP, annualized quarter/quarter growth rate



Sources: BEA; Moody's Analytics

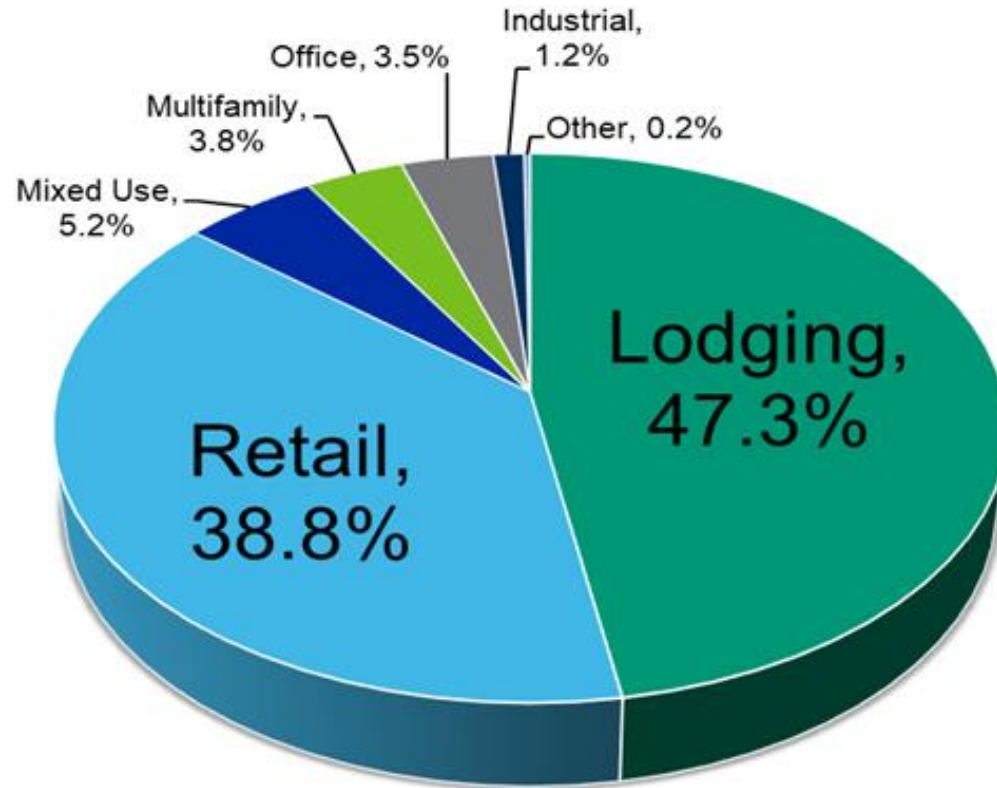
The Labor Markets Through July

Job Creation and the Unemployment Rate



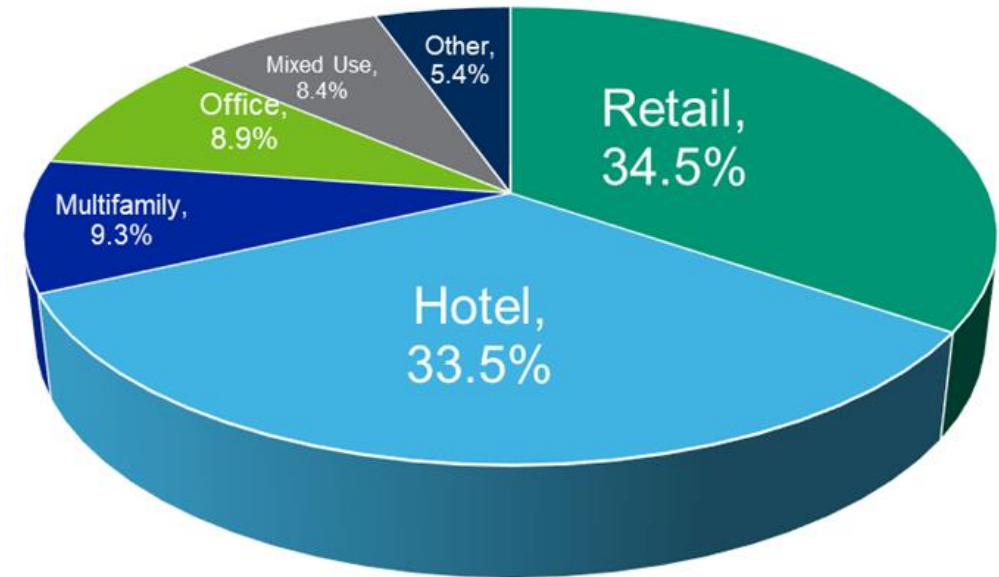
Sources: Bureau of Labor Statistics; FRED

Distress in the CMBS World



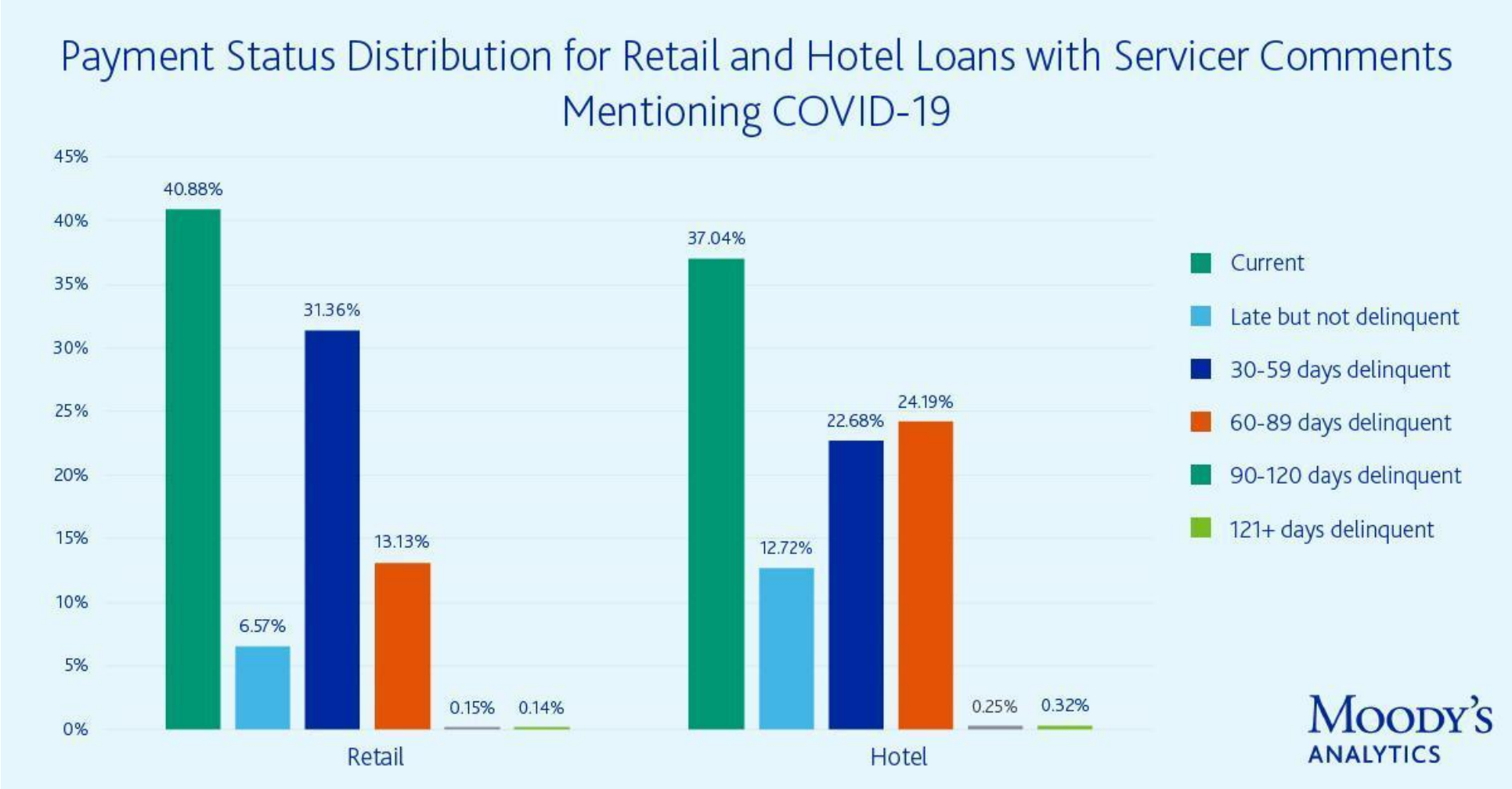
Share of Relief Requests Received, by Property Type (CWC Capital, UPB \$8 billion)

Share of Loans Mentioning 'COVID-19' in Servicer Notes, by Property Type (UPB approximately \$41 billion)



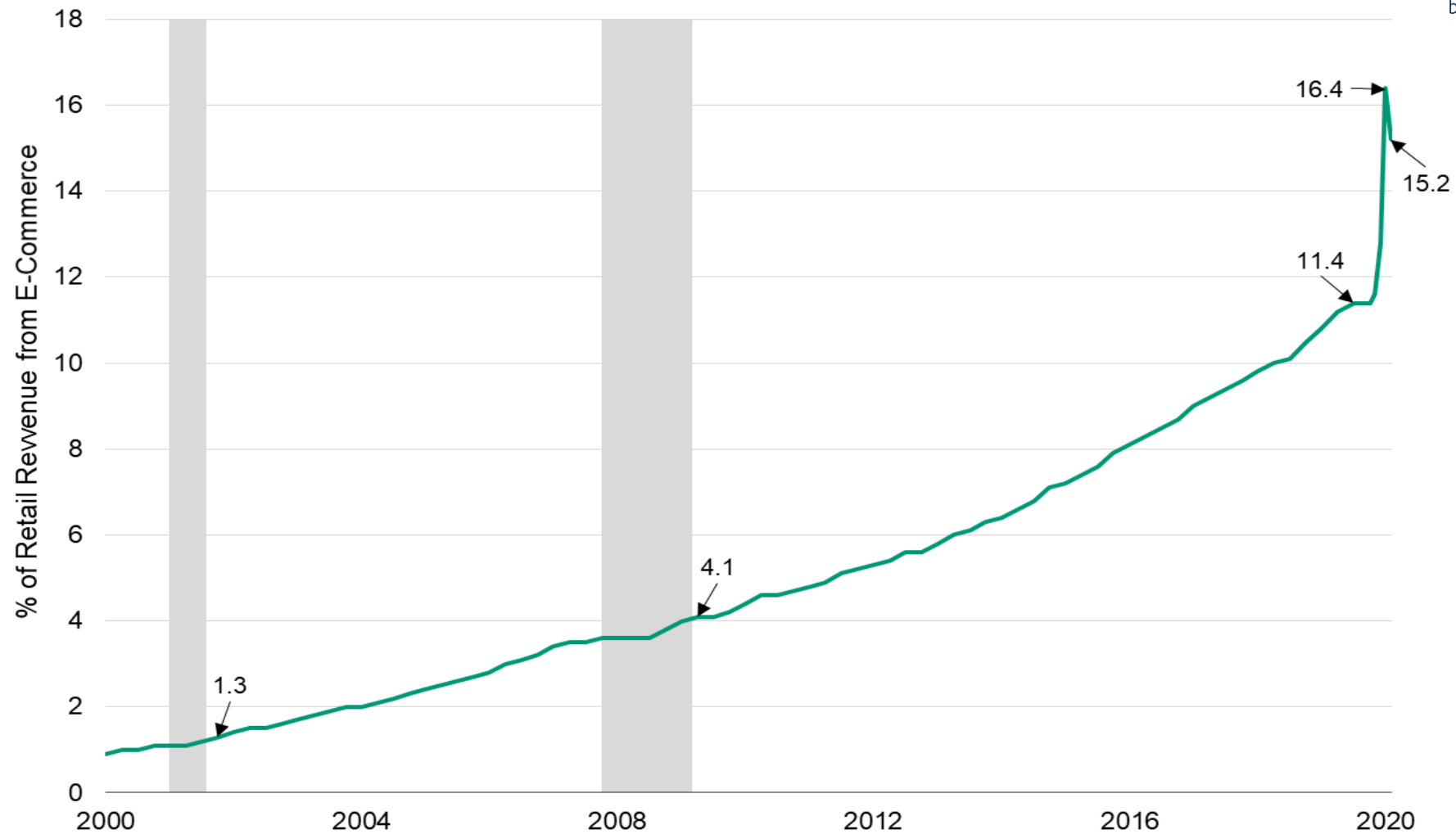
Sources: CW Capital; Moody's Analytics Structured Finance Portal

Where Is Distress? It Depends...



Source: Moody's Analytics Structured Finance Portal

Retail: Evolution, Accelerated

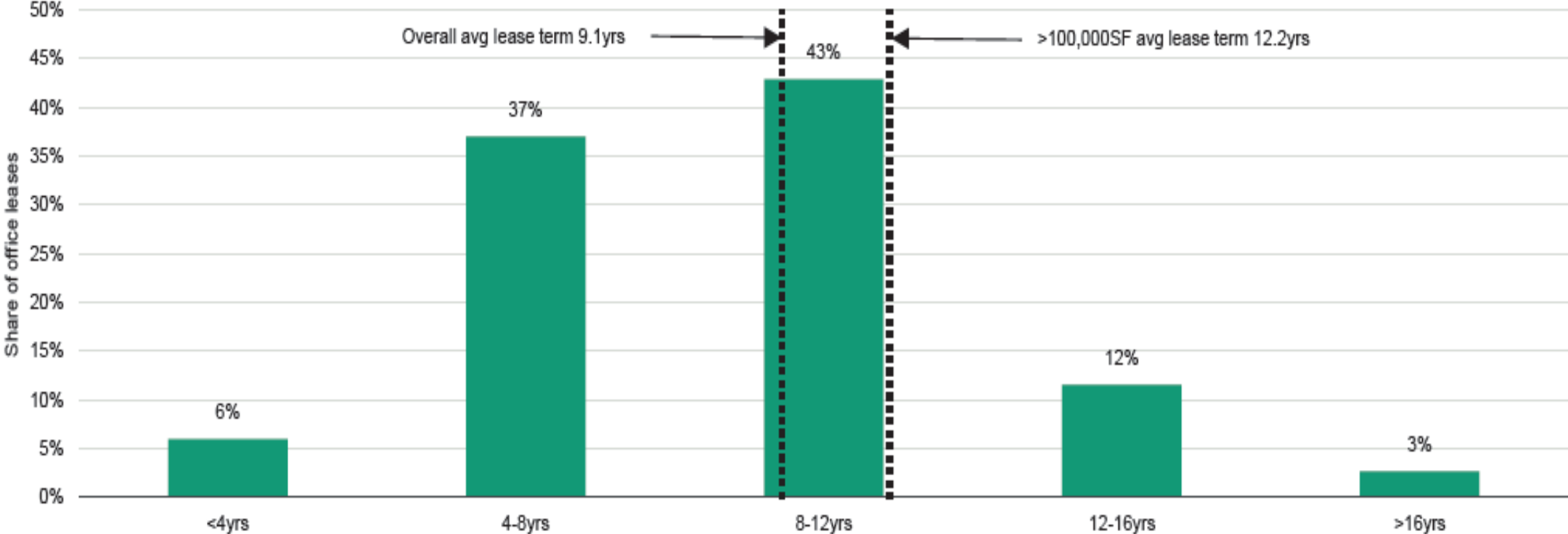


Sources: U.S. Commerce Department; Moody's Analytics

The Evolution of Office Will Take Time



The majority of office lease terms are greater than eight years
Distribution lease terms for US offices of 10,000 SF or more



Sources: Moody's Investors Service, Moody's Analytics, Compstak

How Much Time, Exactly?

Office leases expire slowly over many years
 Quarterly share of office leases expiring in the six major markets*

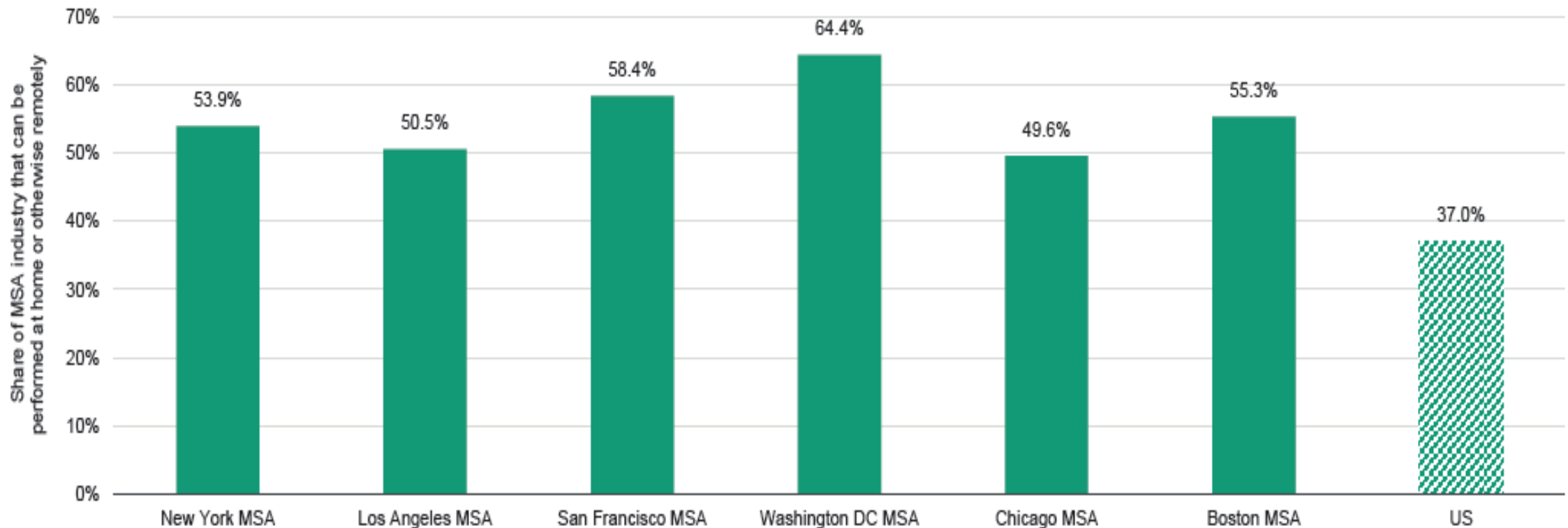


*The six markets in this chart are New York, San Francisco, Chicago, Boston, Los Angeles, and Washington DC.

Sources: Moody's Investors Service, Moody's Analytics, Compstak

Let's Assess Risk In a Nuanced Way

Major office market industries are more easily performed remotely
Estimated share of "jobs that can be done from home" in the six major markets, per the NBER

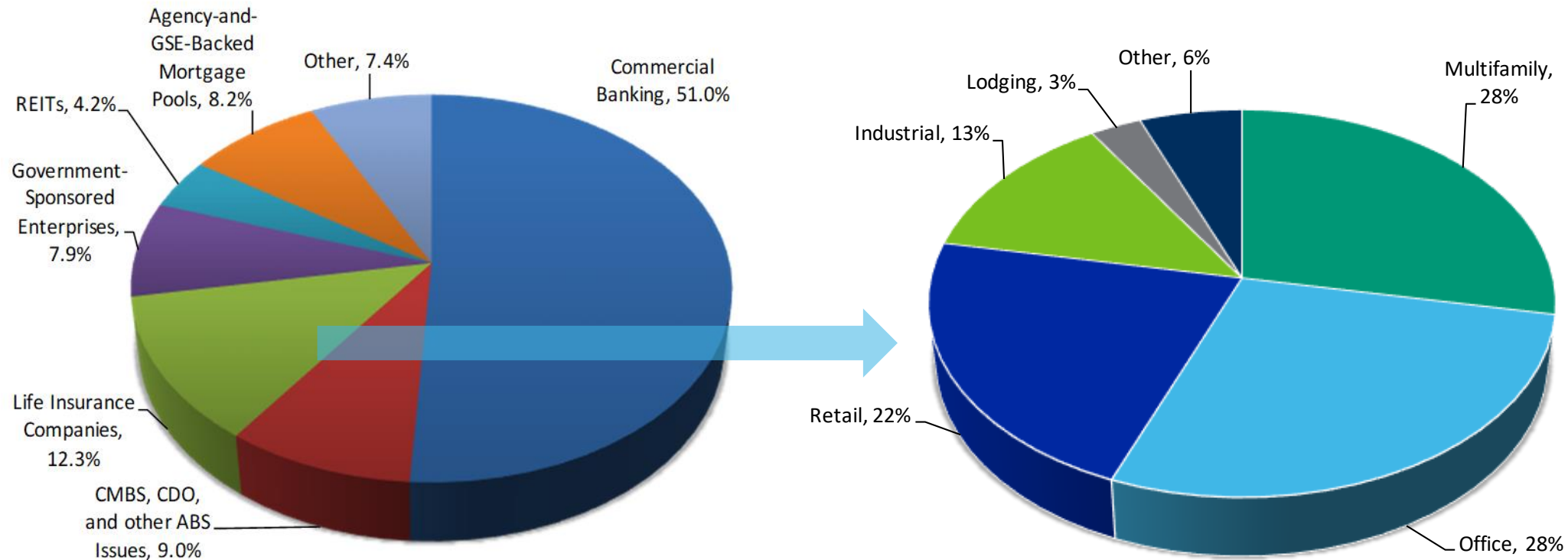


Sources: Moody's Investors Service, National Bureau of Economic Research (NBER)

Stress Will Depend on Focus and Footprint

Total MF/CRE Mortgage Debt Outstanding – and the Life Cos

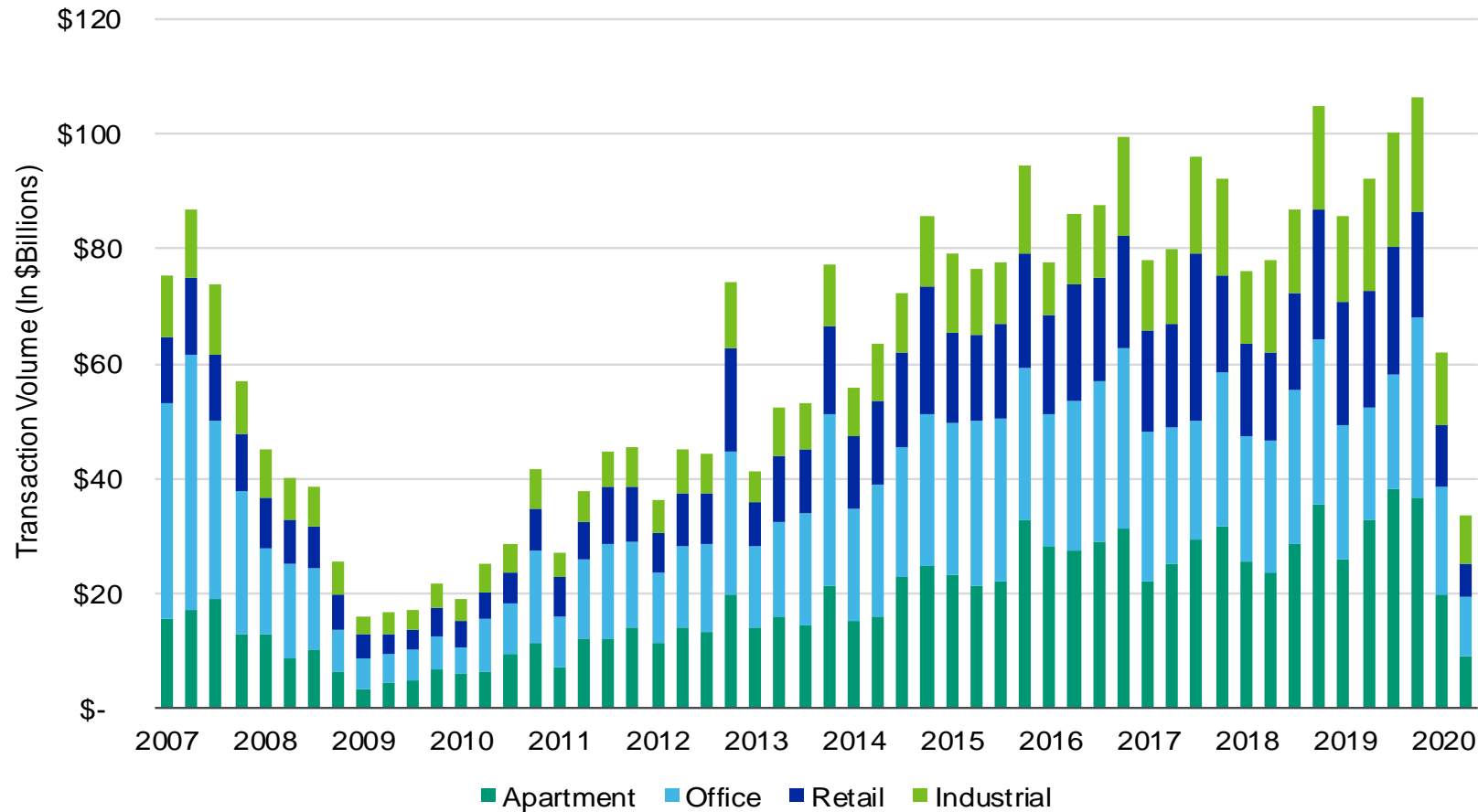
Total and Multifamily Debt Outstanding: \$4.66 Trillion



Sources: Federal Reserve, latest data available as of June 2020. Data on the insurance sector from the Mortgage Bankers Association, Moody's Analytics

Transaction Activity Down (Again)

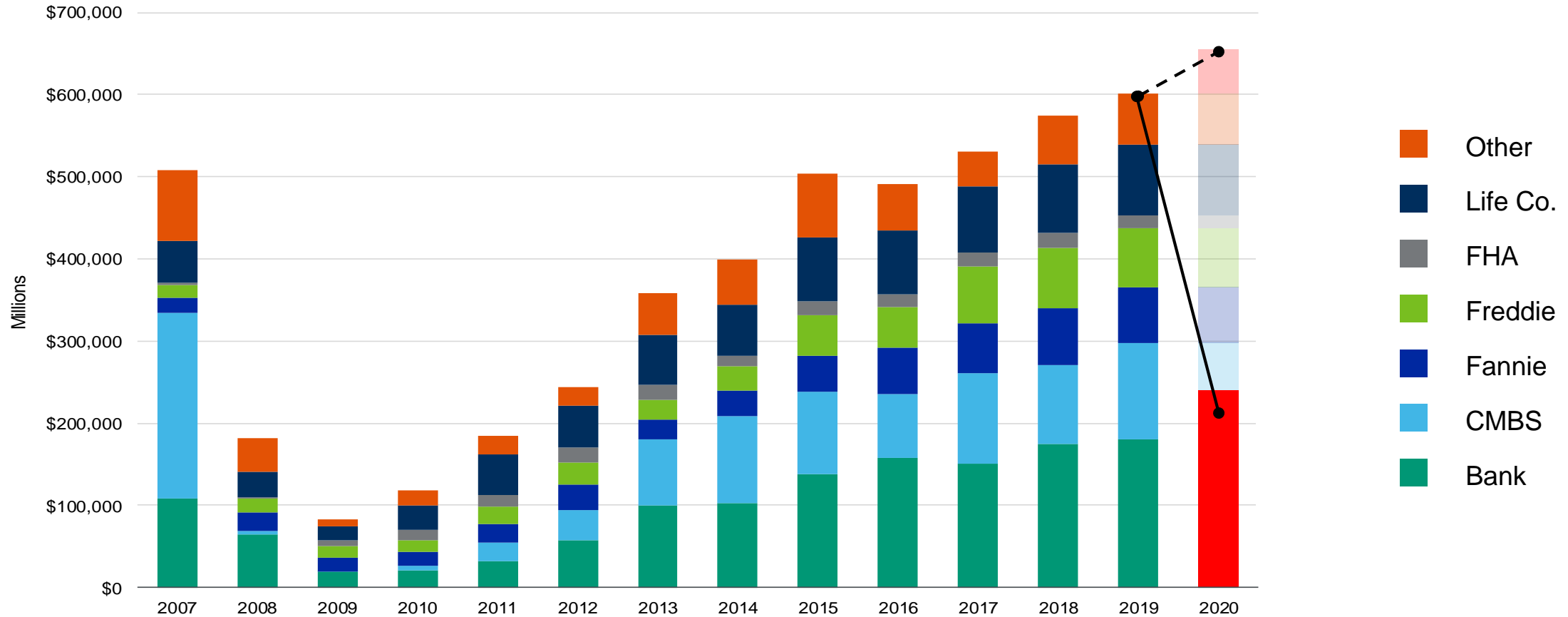
Compare and contrast this with 2008-2009



Source: REIS, Real Estate Solutions by Moody's Analytics

Expected Originations Volume

Multifamily + CRE issuance volume, by year

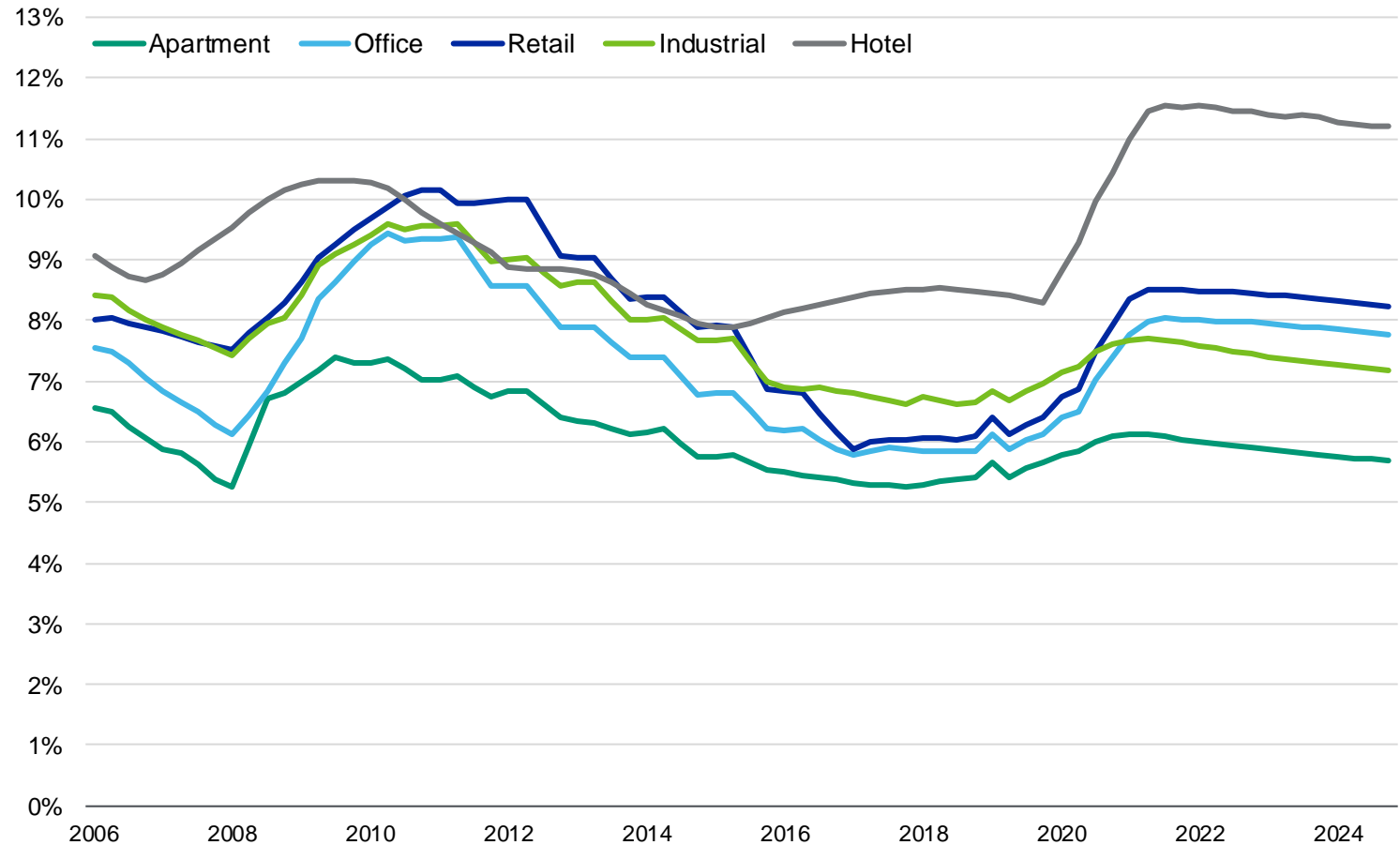


Sources: Mortgage Bankers Association, Moody's Analytics

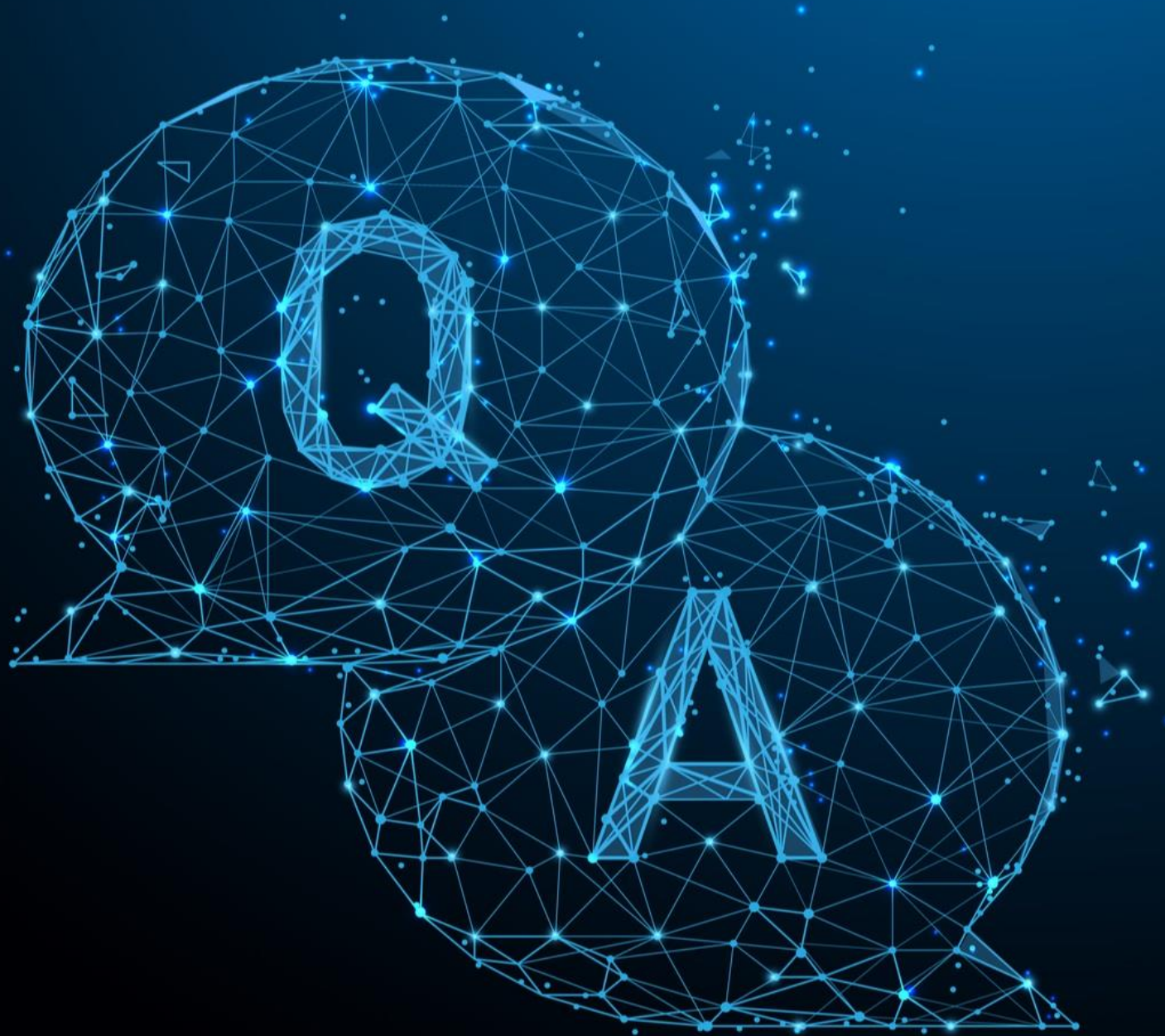
Cap Rate Forecasts

Implied Value Declines for 2020

- » Given major economic distress, expect cap rates to rise over the course of the year. Implied value declines will differ across property types: ~7% for apartment, ~9% for industrial, ~17% for office, ~19% for retail, and ~21% for hotel.
- » So why are deals not happening?
- » *Interest rates and cap rates do not move in direct proportion to each other, all the time. It is highly dependent on the business cycle.*



Source: Moody's Analytics REIS



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