



## Invest with the Best In Commercial Real Estate

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November 5, 2019





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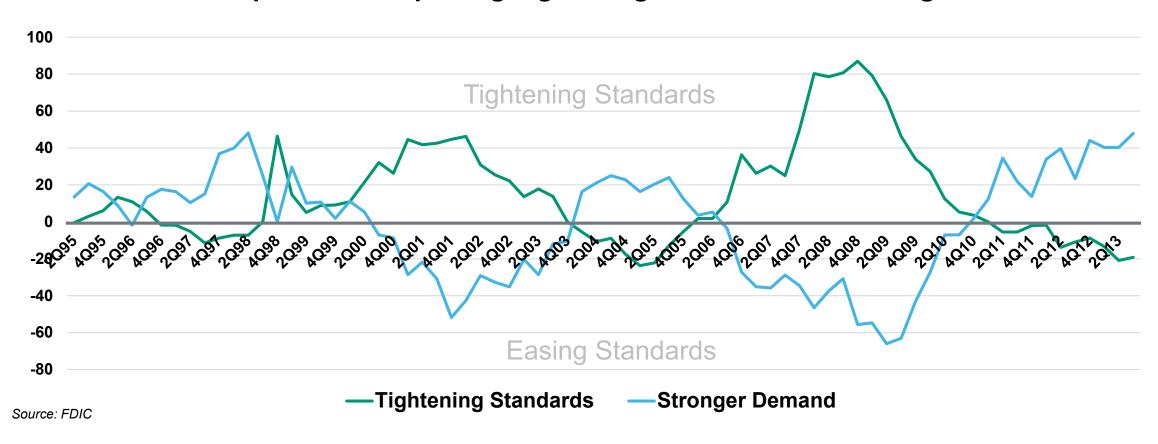
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### Supply and Demand for CRE Loans



All Commercial Real Estate (1995-2013)

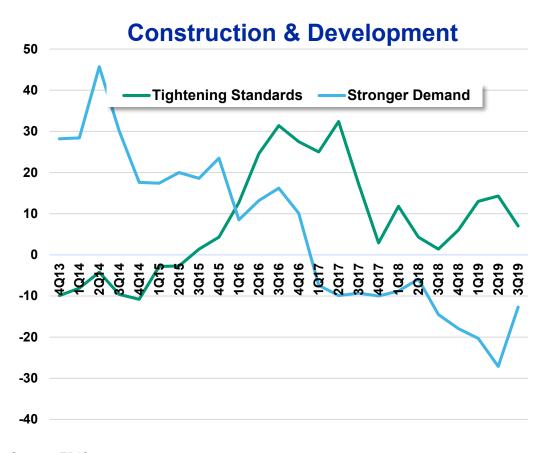
### Net % of Respondents Reporting Tightening Standards and Stronger Demand

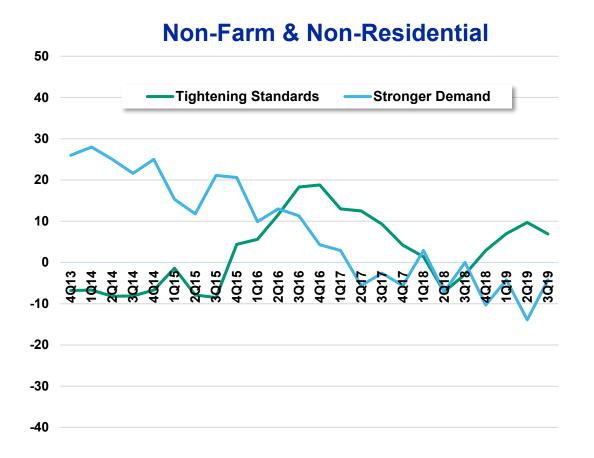


### Supply and Demand for CRE Loans



### Net % of Respondents Reporting Tightening Standards and Stronger Demand (2013-Present)



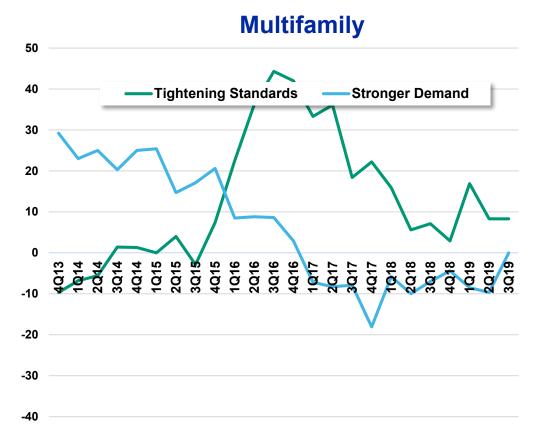


Source: FDIC

### Supply and Demand for CRE Loans



### Net % of Respondents Reporting Tightening Standards and Stronger Demand (2013-Present)



Source: FDIC; Mortgage Bankers Association, Census.gov

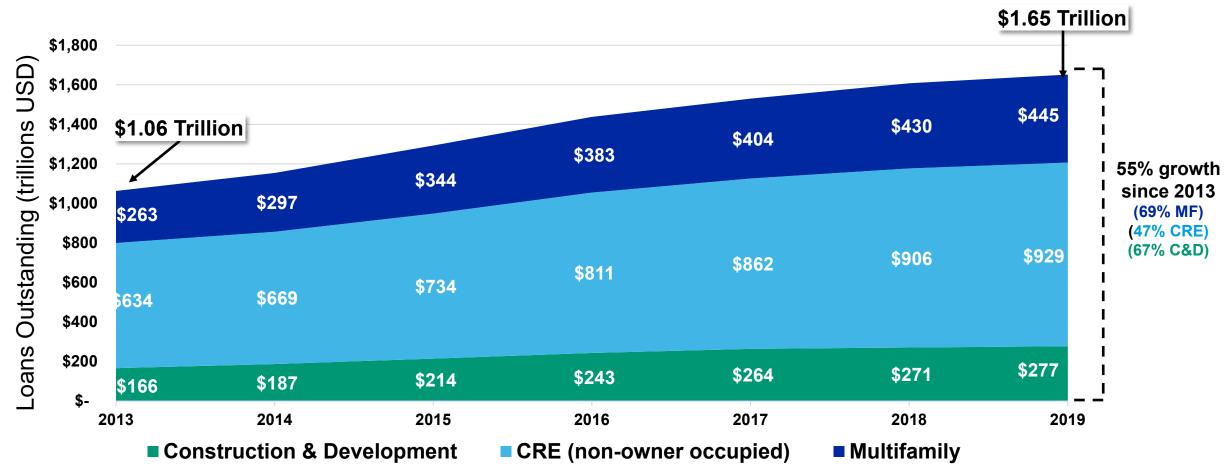
### By the Numbers...

- » Lenders closed a record \$574 billion in commercial real estate loans in 2018 with an average loan size of \$19 million
- » At \$266 billion, Multifamily properties saw the highest volume of origination – followed by office buildings, retail properties, industrial, hotel/motel and health care
  - 4.0 million new multifamily building permits YTD September; up 21% YoY
- More than half were originated by commercial banks (\$174 billion) and GSEs Fannie/Freddie (\$142 billion)
  - The rest, in order: CMBS issuers, life insurance companies and pension funds, REITs, and investment funds

### CRE Loans Held at Commercial Banks



CRE Loans are the Fastest Growing Asset Class Since 2013



Source: FDIC (excludes SFR construction and OO-CRE)

# Loan Growth and Underwriting Standards Aren't the Only Thing Making Headlines



Technology is Rapidly Changing How the Business of CRE Lending

- The average person is bombarded by the equivalent of about 200 newspapers worth of data each day Five times more than in the 1980s
- The human brain receives 11 million bits and makes 10 quadrillion calculations every second
- » Advancements in technology enable us to make more informed decisions with better (and much more!) information
- » Having more information available at a greater frequency is altering customer expectations and how we do business



"The front office relationship is in an app. The middle office processing is through an API, and the back office is all about analytics."

- Chris Skinner

Author, expert and speaker on banking, finance and fintech



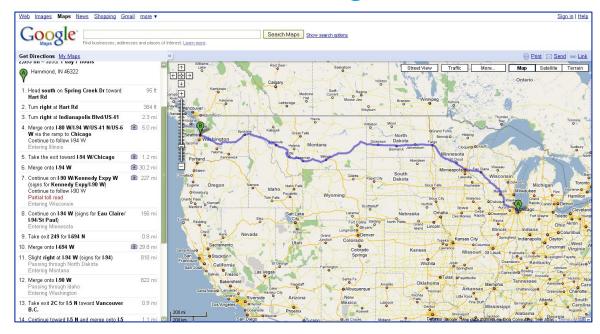
## **Analogy: Road Maps**



### 20 Years Ago...



### 10 Years Ago...



### **Analogy: Road Maps**





### **Today**







#### **Current Stats**

- » 25 million updates from over 1,000 sources each day
- » 1 billion active users each month
- y 40 million miles of roads
- » 150 million places (with names, addresses, ratings, reviews, hours of operation, contact information)
- » 99% coverage of the world

Google used solar-powered cameras strapped to sheep to collect imagery of the Faroe Islands (aka "Sheep Island").

The hilly country has 50,000 people and 70,000 sheep.



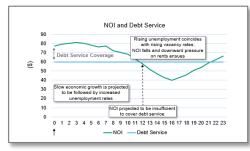
#### Dashboard



#### Financial Statement Analysis



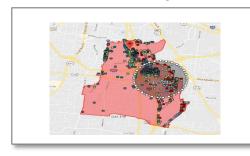
Credit Risk Rating



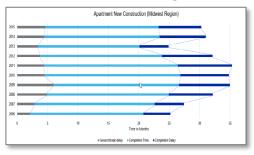
#### **Location Assessment**



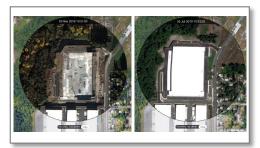
**Market Analytics** 



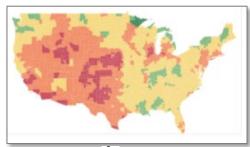
**Construction Analytics** 



Virtual Site Visit



Climate Risk Analysis





Submit

### **Topics For Discussion:**

- » Changing customer expectations and behavior
- "Real-time" information about properties, markets, and emerging risks
- » Digitized and standardized underwriting/onboarding
- » Automated and objectively-based lending and investment approvals
- » Minimizing bias from credit decisions and within models (perhaps w/machine learning)
- "One-stop-shop" vs. modular solutions
- » Shift in recruiting to more tech-savvy and analytical profiles
- » Advanced analytics and use of granular data in lending and risk management
- » Impact of the rapidly-growing number of fintech start-ups
- » Crowdsourcing ideas and information
- » Need to quantitatively demonstrate a strong risk culture (instead of qualitative statements)



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