What Lies Ahead for Collateral Risk: Buggy Whips and Flying Cars?

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Opening Themes

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- Background
  - Appraisal Industry undergoing transformational change since the 2008 financial crisis
  - Crisis underscored the importance of getting collateral value measured accurately and objectively
  - Most organizations failed to understand that the appraisal process is just one, albeit critical component to a larger collateral risk management framework
- Questions to Explore
  - What is collateral risk management?
  - What drivers for change in managing collateral risk do we face?
  - What can you do to prepare?

What is Collateral Risk Management?

- Collateral risk management framework consists of:
  - Governance and oversight over collateral valuation and review processes and activities
  - Collateral risk appetite
  - Collateral policies and standards
  - Monitoring valuation outcomes and processes (QA and QC)
  - Valuation and assessment
  - Data and analytics
  - Understanding collateral risk integration points

Collateral Risk Future Linkages with the Past

- Launch of GSE automated underwriting systems (AUS)
- Emergence of automated valuation models (AVMs) by GSEs
- Concentration of market power by large originators
- Breakdown of critical governance firewalls ensuring validity of collateral valuation process
- Relaxation of collateral valuation policies
- Regulatory and GSE responses to collateral valuation practices

Implications of Market Responses on Future Directions for Collateral Risk – The AUS Spark

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- GSE move to AUS (and with it FHA and VA) in 1996, revolutionized mortgage underwriting processes
- Technology and data came to dominate the process to the chagrin of many underwriters
- We learned that quality data and effective models could allow for more consistent and objective risk decisions but with limits
- No models are perfect (e.g., COVID-19 forecast models)
- AUS models were a catalyst for the next stage of the underwriting process – collateral valuation and AVMs

Implications of Market Responses on Future Directions for Collateral Risk – Ushering in the Age of AVMs

- Not long after AUS was adopted by the GSEs, AVMs started to make their appearance due to such advantages as:
    - Reduced cost of homeownership
    - Speed to market
    - Objectivity and consistency in valuation
- In the early days, AVMs were somewhat of a wild west show, policy cascades or waterfalls were generally underdeveloped
- The emergence of these models, particularly right before and during the mortgage boom facilitated some firms to take extranormal risks

- Large originators (e.g., Countrywide) exerted enormous control over key parts of the mortgage supply chain including the appraisal process
- This eroded appraisal independence over time which had long-lasting effects on the appraisal industry
- In the aftermath of the crisis, unfortunately widespread evidence of overvaluation of collateral undermined the credibility of the industry with major market participants today including FHFA and the GSEs
- In the wake of the crisis, collateral governance practices were scrutinized leading to practices to ensure appraisal independence
    - HVCC
    - AIR

What Do These Factors Mean for Collateral Risk?

- Deficiencies in collateral risk management fundamentally shifted the focus of key market participants away from standard appraisals to technology-based solutions – Why?
  - Attempt to reduce operational risks
- Consequently, full-court press was on after 2008 to find better data and modeling of collateral value to improve the accuracy and hit rate of AVMs as well as other practices to improve the valuation process
- We are in the midst of this transformation and where is this going?

Buggy Whips and Flying Cars

- There are some industry observers (not me) that believe the appraisal process is anachronistic to a 2020 mortgage industry (Buggy whip makers argument)
- This argument points to deficiencies in the process before 2008 and advances made in data and technology since that time (Flying cars are the future of travel argument)
- But have we heard this mantra before?

The Shiny Object Bias

- In the years during the mortgage boom, many advances were made to analytical models to underwrite borrowers, value collateral and forecast losses
- Those models proved to be catastrophically wrong for the most part
- Management became enamored with these quantitative tools and they became embedded in core risk processes
- In other words, quantitative models to a large extent usurped experience and judgment and were undermined by lax credit policies that polluted the data stream
- We find ourselves again at a time when advances in data and models (big data, AI, Machine Learning) have become ubiquitous in financial services

Technology and Collateral Valuation Directions

- AVMs will continue to evolve and find their way into the valuation process
- Past challenges in data coverage, timeliness and consistency are improving
- Past challenges in accuracy around nonstandard properties and market and condition issues will improve
- Technology advances for AVMs include:
  - Geospatial analysis
  - Drone technology
  - Mobile device technology (electronic tape measures, online video, etc.)
  - Text mining

Implications for Collateral Risk Management

- Transformation will be dislocating – there will be winners and losers
- Winners
  - Data scientists and modelers
  - Consumers (costs will continue to go down)
  - New entrants performing new tasks or some tasks otherwise performed by appraisers
- Losers
  - Appraisal industry
  - Depending on how far technology goes, eventually there could be valuation problems down the road – after all we are increasingly dependent on two views on collateral value

Some things to think about going forward

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- Will the desire to reduce appraisal operational risk give way to greater model risk?
  - Model risk is inherent with greater use of AVMs in the market and dependency on just 2 increases that risk
- Does technological change in the appraisal industry imply a zero-sum game?
  - Just as our intelligence services have learned that “satellite intel” can never replace “human intel” in gathering information on bad actors, there will always be a need for the human element in the appraisal process
  - Understanding how appraisals fit into the larger picture of collateral risk management can equip appraisers with the framework and practices needed to *balance* art and science in this critical part of the mortgage supply chain

Questions?