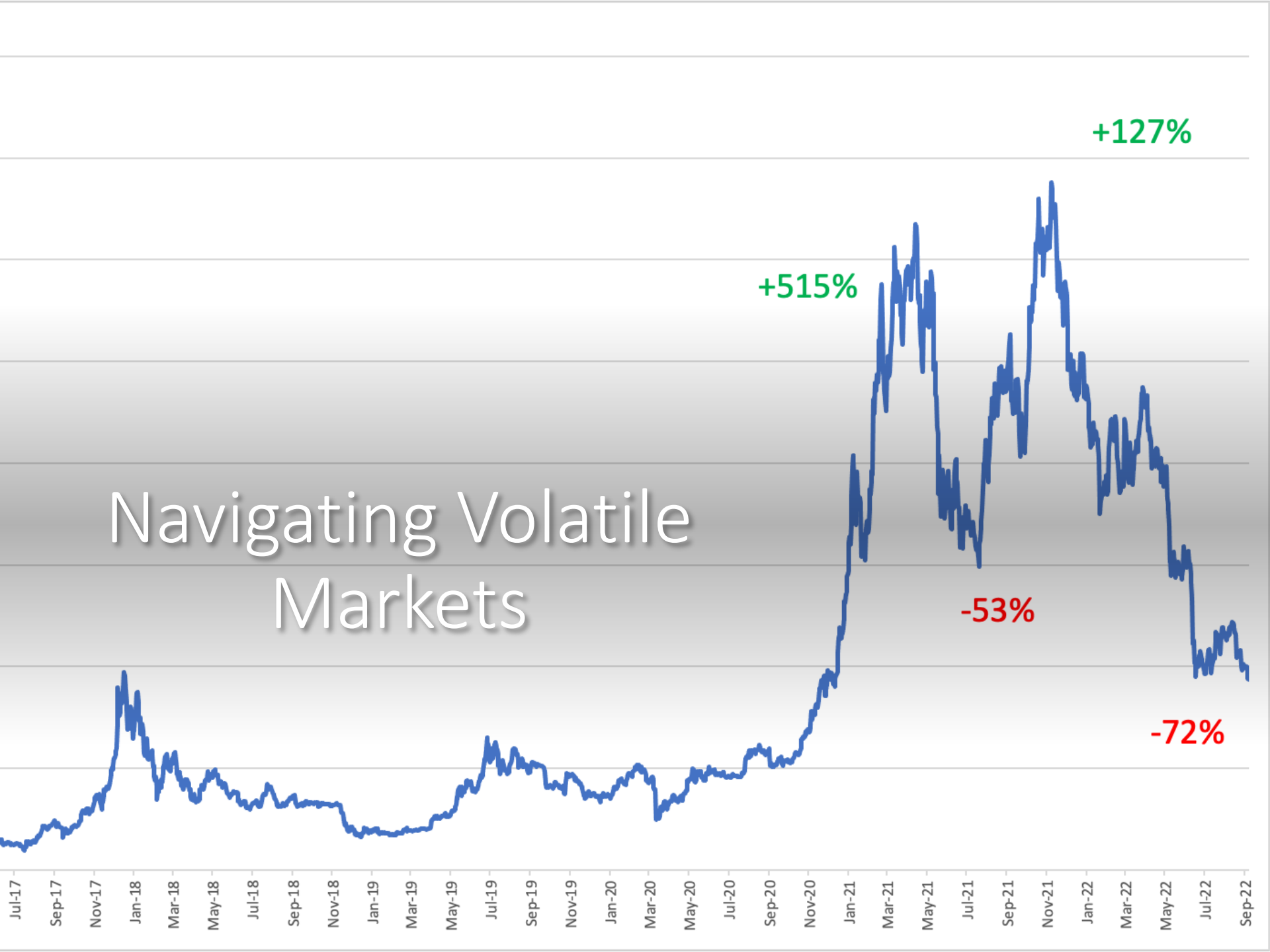
Navigating Volatile Markets
+127%
+515%
-53%
-72%
Jul-17
Sep-17
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Jan-18
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May-21
Jul-21
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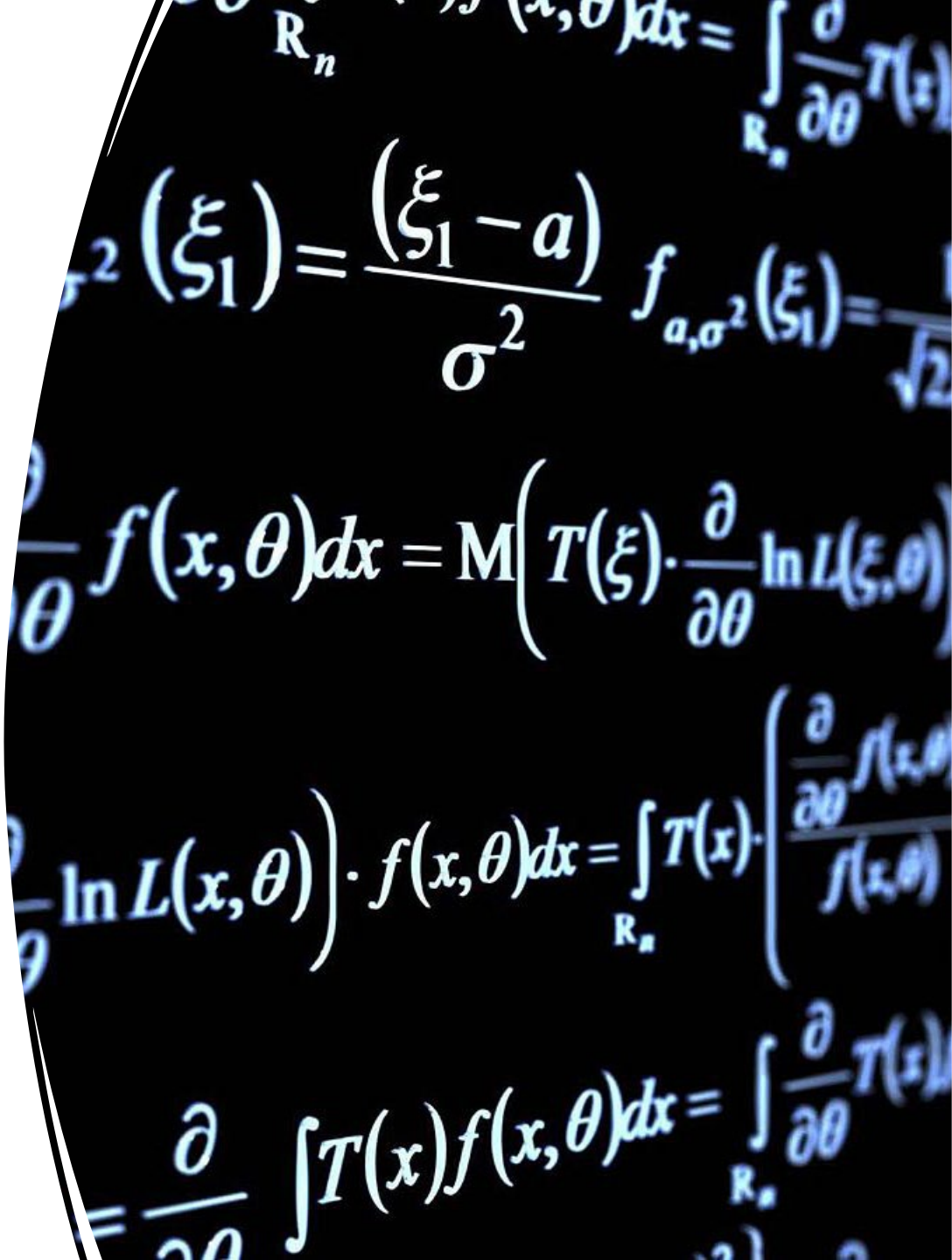
May-22
Jul-22
Sep-22

# The Case to Revisit Relative Value

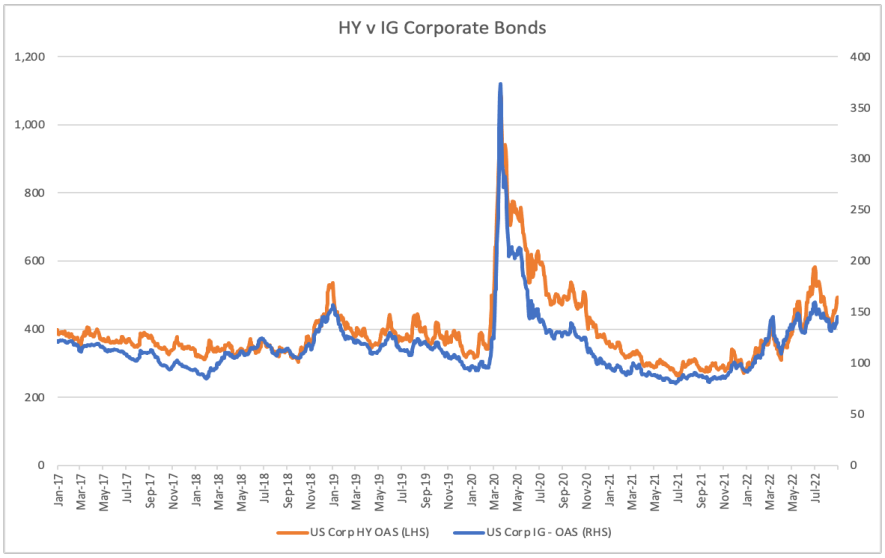
- Insurance investing is complicated due to multi-dimensional constraints and the competitive nature of the products offered
- Given the competitive environment, recent trends in insurance investing include reducing unnecessary liquidity and in some cases, taking on more risk
- Due to recent macroeconomic developments driven by changes in monetary policy and exogenous forces, markets are becoming dislocated and more volatile which widens the opportunity set
- While all aspects of insurance investing are important, having a well designed relative value process within asset classes and across asset classes will be critical to investment performance going forward

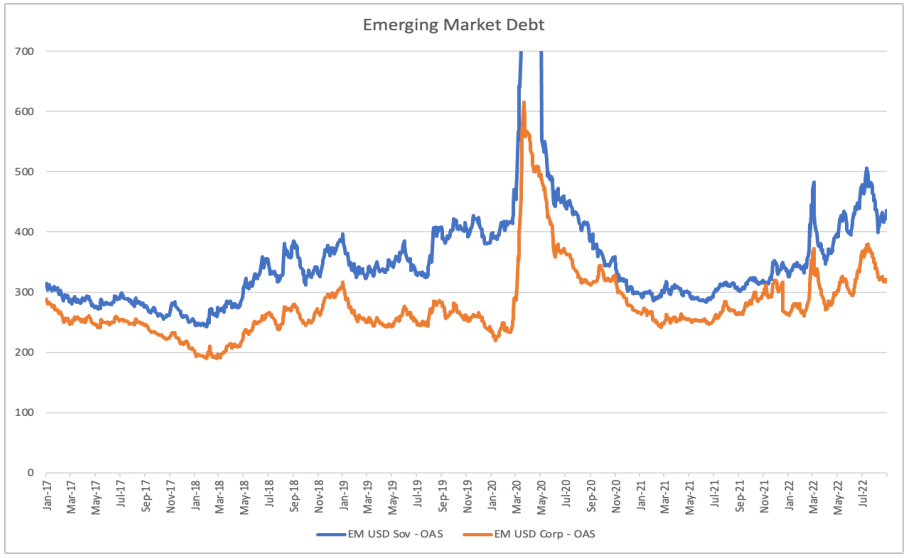
# Insurance Investing is Complicated

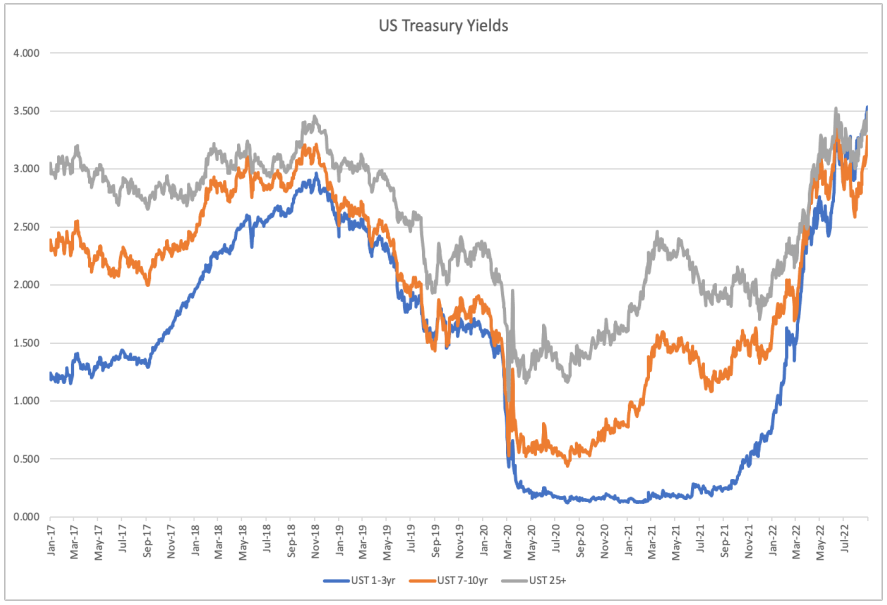
- Capital Efficiency
- Risk Appetite / Stress Testing
- ALM / LDI
- Liquidity
- Relative Value

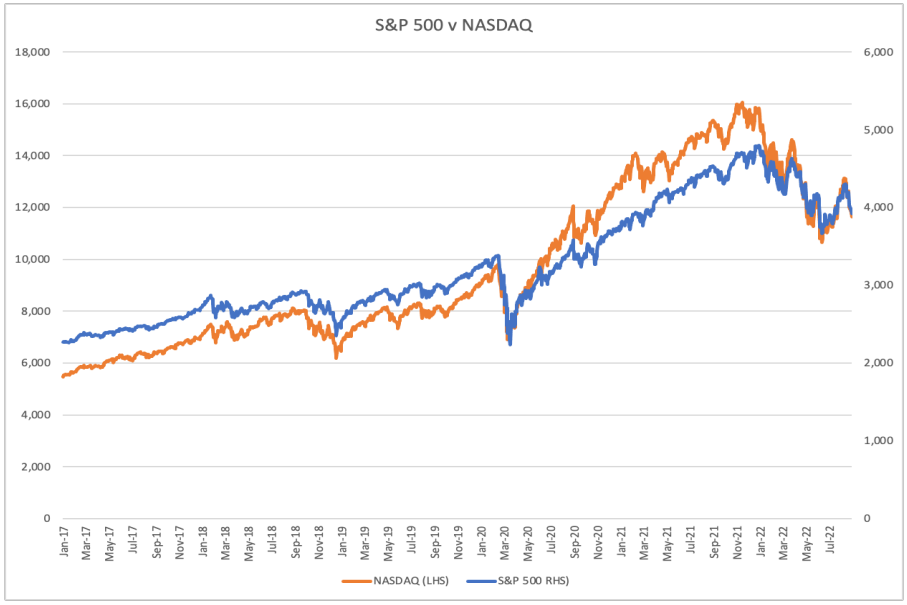


# Markets Are Undergoing a Major Shift



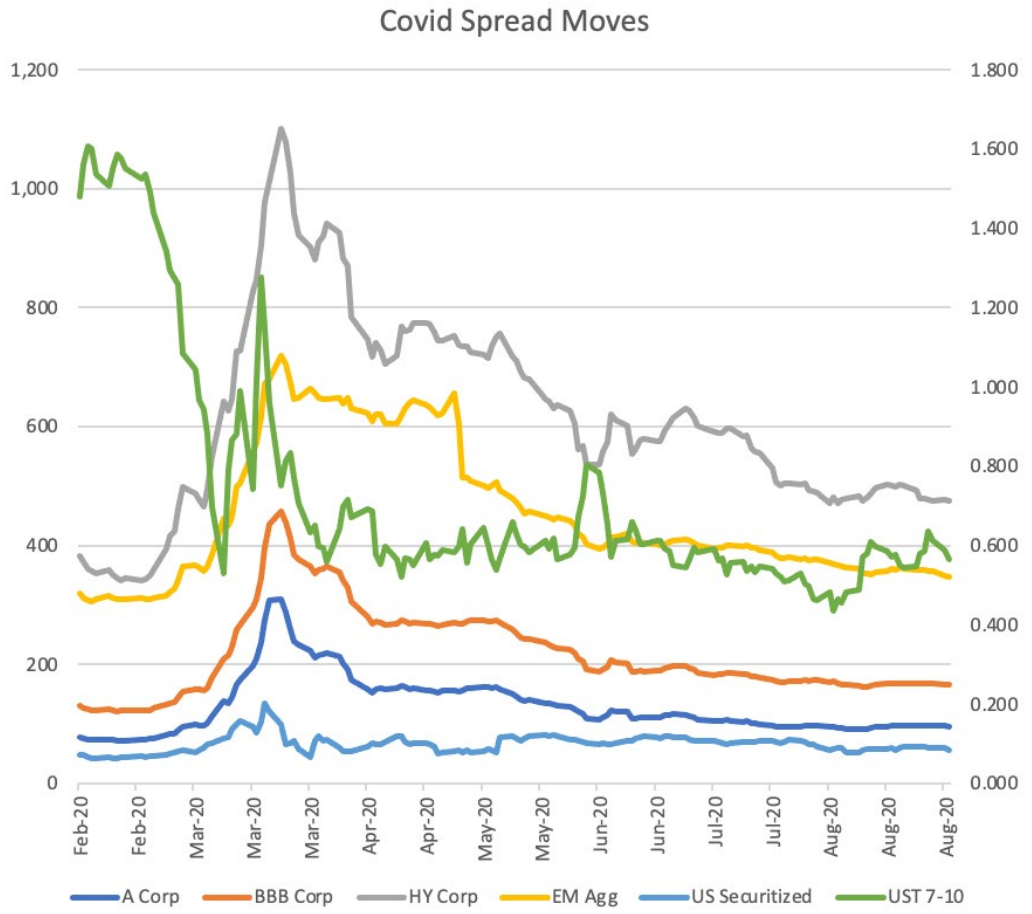




Source: Barclays

# In Times of Stress, Markets Move Fast

- When markets undergo major paradigm shifts, they move at different speeds
- COVID was a good example of this
- Private corporate and structured debt lagged the move higher in spreads and stayed higher for almost a year as investor preferences for risk and liquidity adjusted
- Mortgage REITs suffered a significant liquidity event due to leverage and collateral calls
- CMLs lagged all publicly traded markets and offered significant premiums to public debt as investors tried to sort out how COVID would affect subsectors like office and retail




Source: Barclays

# Developing a Relative Value Framework

**Quantitative Analysis**

Statistical measures of richness and cheapness

Capital based flexible tools

**Qualitative Analysis**

Fundamental analysis (F-V-T)

Structure / Capital Stack to optimize risk and capital treatment

**Comparisons among similar collateral types**

REIT v CML v CMBS

Public v Private corporate

Residential v Commercial Real Estate

Debt v Equity

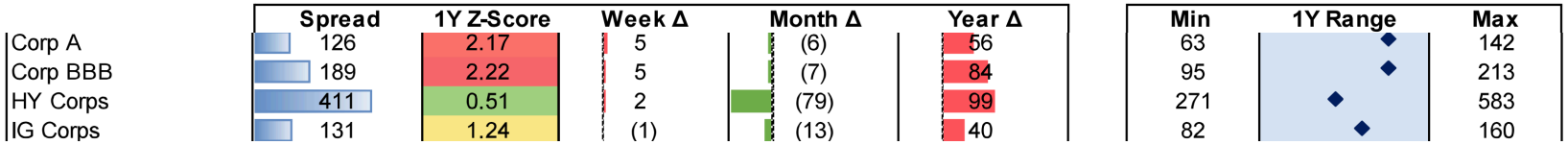
**Control the process**

Rules based framework

Capture results in database

# Quantitative Analysis

- Statistical Metrics



| | Spread | 1Y Z-Score | Week Δ | Month Δ | Year Δ | Min | 1Y Range | Max |
|---|---|---|---|---|---|---|---|---|
| Corp A | 126 | 2.17 | 5 | (6) | 56 | 63 | | 142 |
| Corp BBB | 189 | 2.22 | 5 | (7) | 84 | 95 | | 213 |
| HY Corps | 411 | 0.51 | 2 | (79) | 99 | 271 | | 583 |
| IG Corps | 131 | 1.24 | (1) | (13) | 40 | 82 | | 160 |

- Capital Based Metrics

| Asset Class | Rating | Gross Yield | Net Yield | Option Cost | Funding | Net Spread | Capital Charge 1 | Capital Charge 2 | ROC 1 | ROC 2 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A | 4.44 | 4.40 | - | 4.09 | 0.31 | 1.49 | 2.52 | 20.8% | 12.3% |
| 2 | BBB | 4.80 | 4.70 | - | 4.09 | 0.61 | 5.01 | 4.71 | 12.2% | 13.0% |
| 3 | BB | 5.80 | 5.30 | - | 4.09 | 1.21 | 20.10 | 14.01 | 6.0% | 8.6% |

# Qualitative Analysis

- Incorporate expert views to avoid value traps
  - F-V-T framework
  - Return projections over intermediate timeframes
- Determine best way to source the underlying risk
  - Private versus public
  - CMBS versus CML
  - Various forms of real estate
  - Debt versus equity
- Control the process and track results
  - Rules around return projections
  - Develop databases to capture data

# Investing is a Team Sport

- How often you meet to discuss markets and shifts in investing
- Who is included in the process and what are their roles
- Create a culture of debate
- Who is ultimately accountable
- Importance of having diverging views in the room