



FEDERAL RESERVE BANK *of* NEW YORK

FIASI Women in Fixed Income Conference

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February 9, 2023

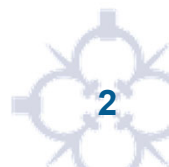
Federal Reserve and financial markets

- Financial conditions measures derived from financial markets based on information that forecasts output

How are financial markets incorporating and combining with Fed policy to affect output and employment?

- Financial stability concerns arise from vulnerabilities which can build in the financial system and amplify risk when shocks hit

What vulnerabilities are building in the financial system (asset prices, excessive borrowing, financial sector leverage and funding risks)?

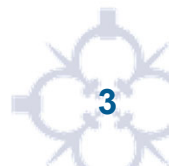


US corporate bond markets fund the US economy



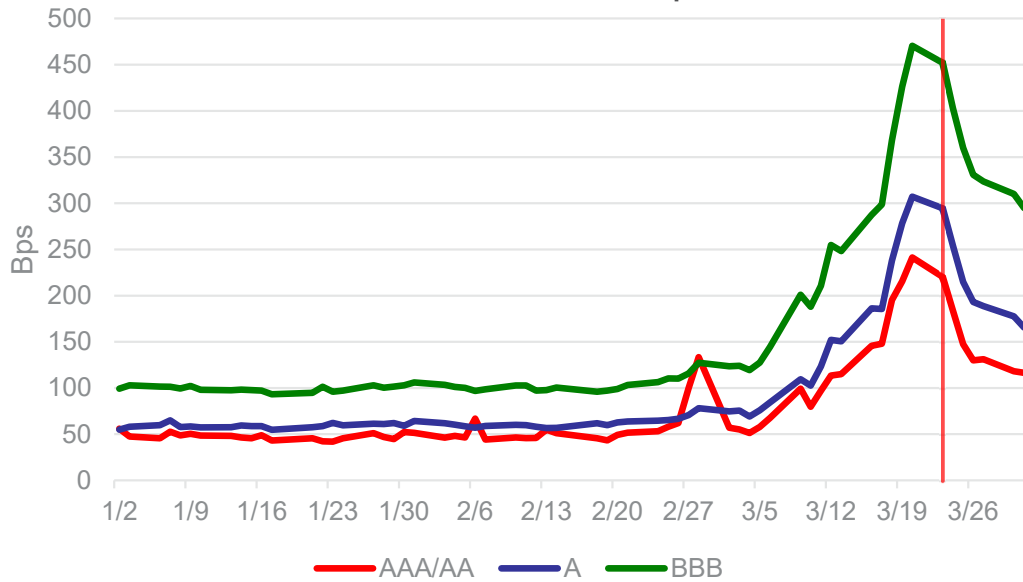
Source: SIFMA

- More than two-thirds of total debt funding to US non-financial corporations
- The majority (60%) of US corporate bonds are owned by US residents

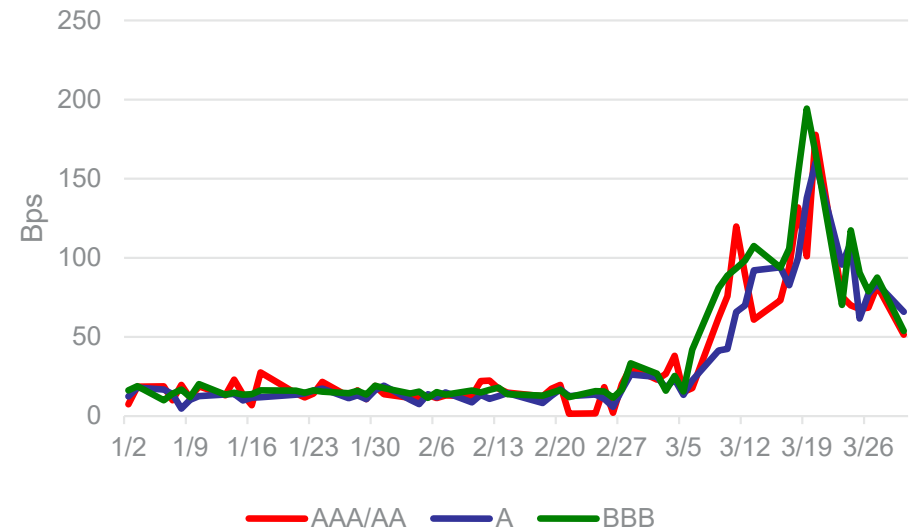


Severe disruption in March 2020

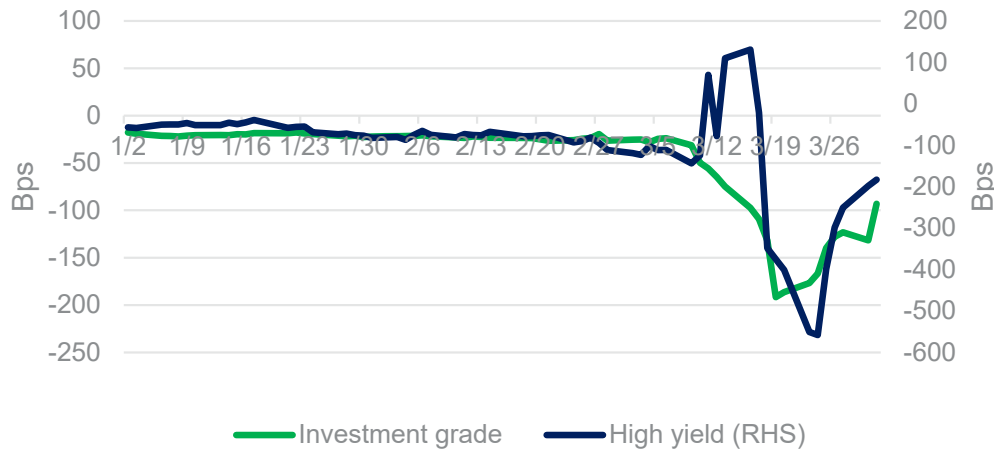
Duration-matched credit spreads



Bid-Ask Spreads



CDS-bond basis



ETF Price-NAV basis



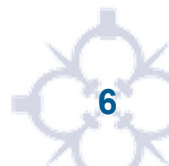
Corporate Credit Facilities (CCFs)

- March 23, 2020: Primary and Secondary Market Corporate Credit Facilities (PM and SMCCF) designed to work together to ensure that U.S. companies would have access to funding
- Boyarchenko, Kovner, and Shachar (2022) find the facilities:
 - Improve prospects for the U.S. economy, **reducing the risk premium investors require for risk** and the prices investors are willing to pay for risk
 - Reduce indiscriminate asset sales by reducing the **information sensitivity** of eligible bonds
 - Increased **willingness of broker-dealers to intermediate** in bond markets
 - **Direct impact on eligible securities** from purchases and the presence of a backstop lending facility



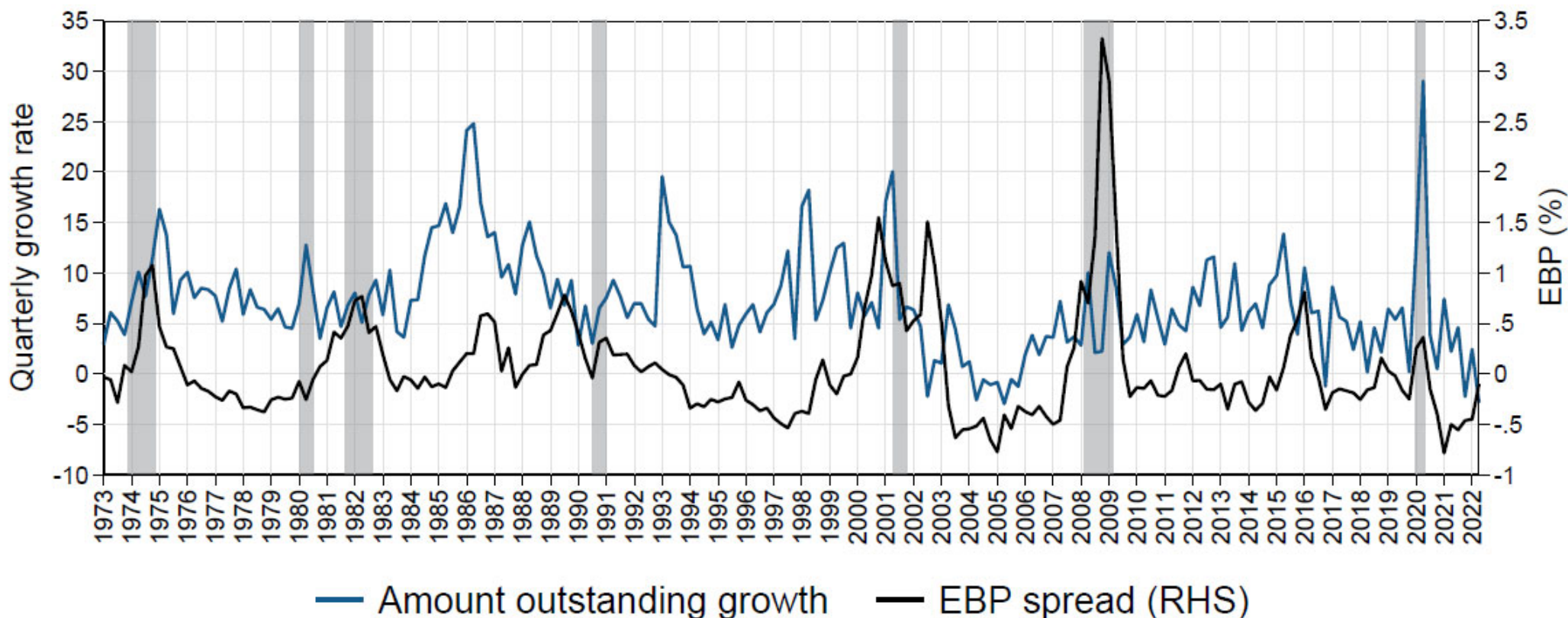
Understanding bond markets

- Corporate bond market distress multifaceted:
 1. Primary market issuance slow downs
 2. Secondary market prices decrease and liquidity dries-up
 3. Secondary market volume may either increase or decrease
- Corporate Bond Market Distress Index – weekly data posted monthly on the NY Fed website
 - Goal: understand aspects of market functioning and summarize into a single weekly “distress” index
 - Not a goal: predict prices of corporate bonds



What measures to include?

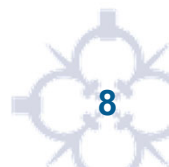
- CMDI innovation: Add primary market measures
- Secondary market prices \neq primary market conditions



Source: Mergent data and author's calculations.

How to combine measures?

- Preponderance of measures approach
- Intuition: periods when more individual metrics are in the tail of their corresponding distribution are periods when “market” more likely to be in overall distress
 - Pros: More measures, optimally combined means that the resulting index is less volatile and less vulnerable to distortion by a single measure
 - Cons: Harder to tie movements to any single measure
- Distress in corporate bond market itself, not dislocation between related markets



Weekly primary and secondary market measures

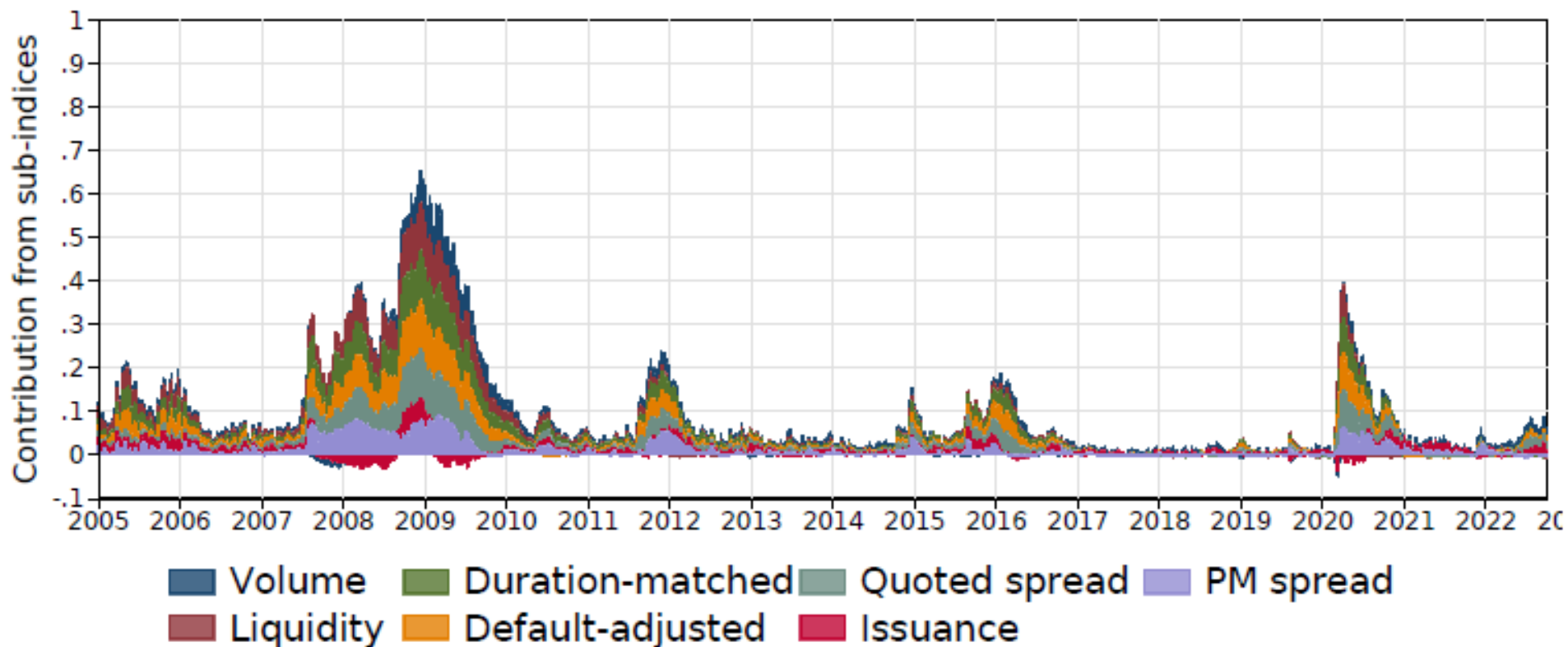
- 1. Volume:** intermediated volume (D2C/Total), average D2C trade size, customer buy-sell pressure ratio, turnover
- 2. Liquidity:** effective bid-ask spreads, Thompson-Waller spread, Amihud price impact, imputed round trip cost
- 3. Traded credit spread:** mean, volatility and dispersion of duration-matched TRACE spreads
- 4. Traded default-adjusted spread:** mean, volatility and dispersion of default-adjusted TRACE spreads
- 5. Quoted default-adjusted spread:** mean, volatility and dispersion of default-adjusted ICE spreads

- 6. Primary market issuance:** dollar amount issued relative to 5 year average, issuance relative to maturing within the next year, number of slow issuance weeks
- 7. Primary default-adjusted spread:** mean and volatility of default-adjusted offering spreads



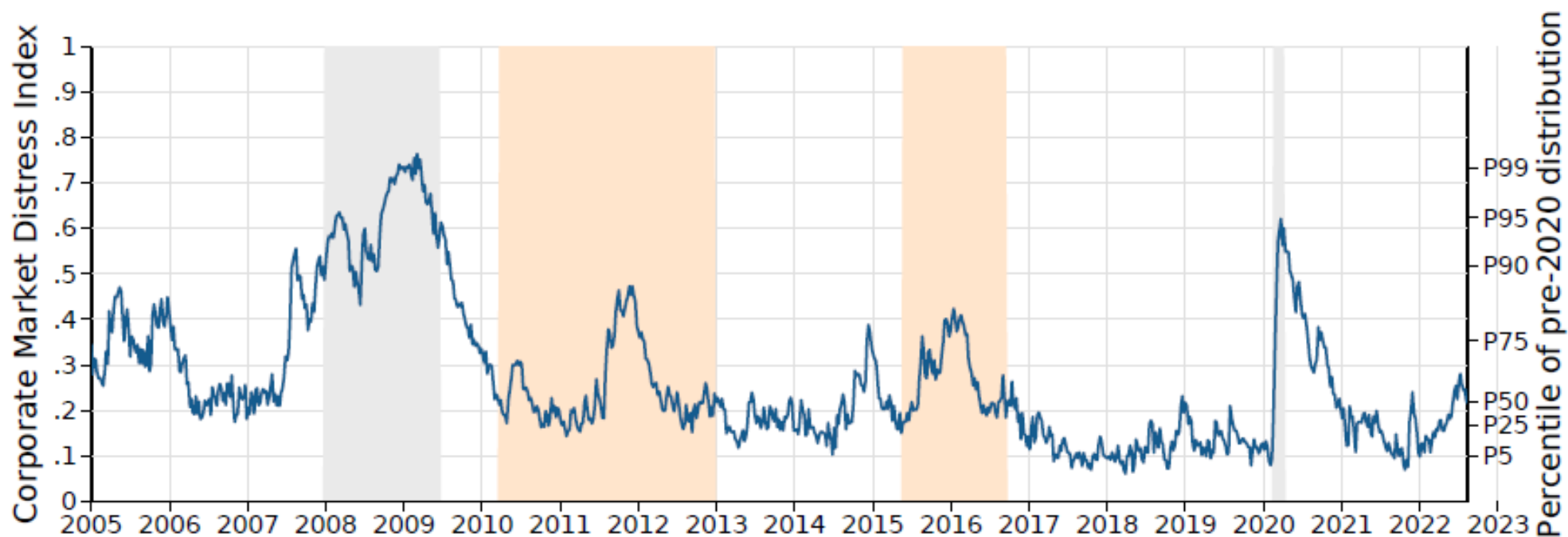
Mechanics

- Standardize measures: using empirical CDF
- Reduce dimensionality: group measures that capture facet of market functioning
- Evaluate similarity: pairwise correlation between market functioning facets



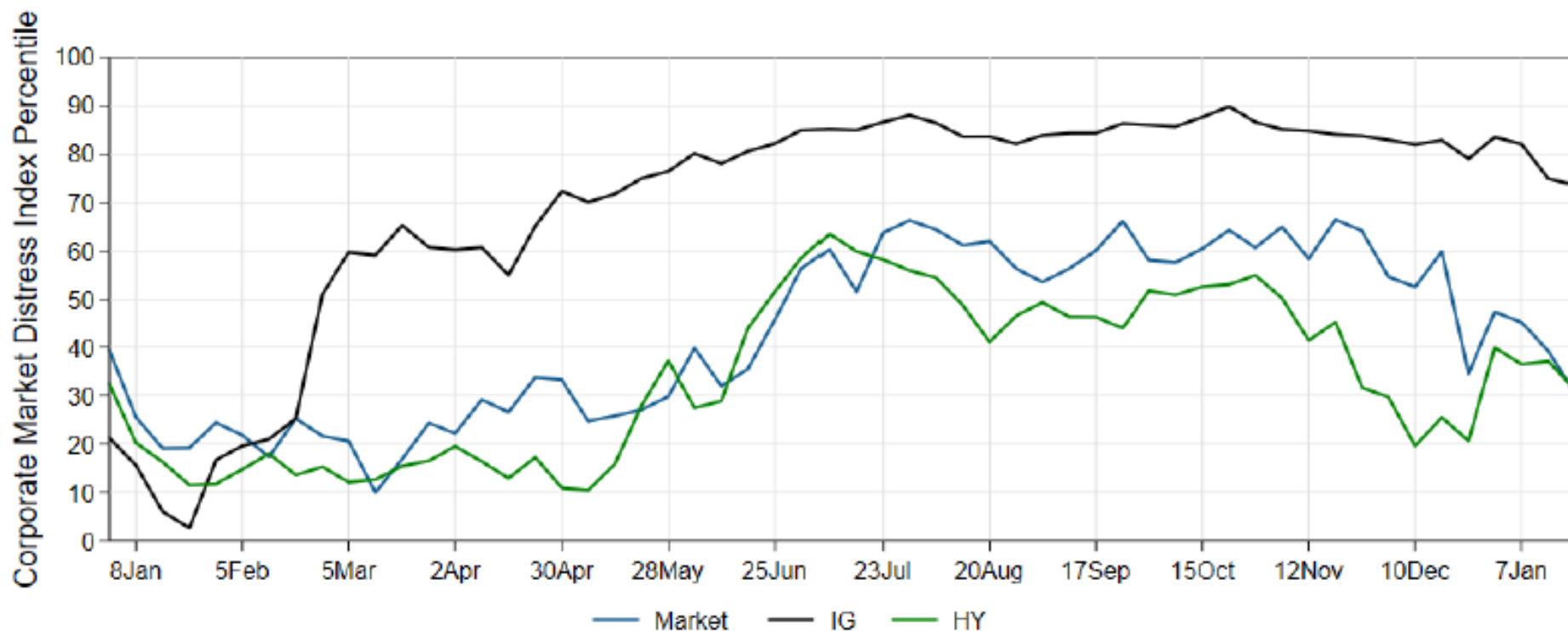
Corporate Bond Market Distress Index

- Posted on FRBNY website
- Correctly identifies periods of dislocation
- Predicts real activity a year ahead, over and above spreads

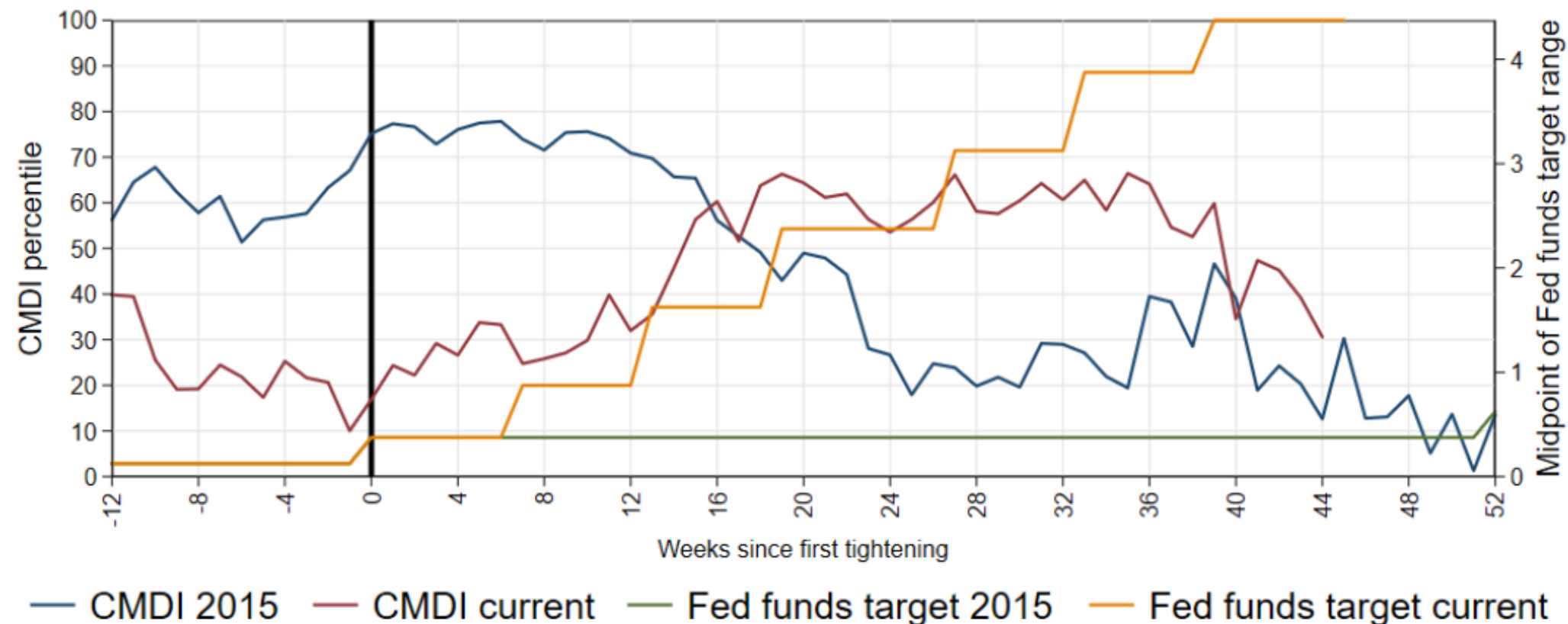


Market-level CMDI increased, but now trending down

- HY index is below historical median, but IG index is at the top
- Reflects slowdown in primary market issuance, particularly after robust issuance in 2020



CMDI peak level similar to 2015 tightening IG peak



What do we gain from indexes?

- CMDI measures bond market functioning, summarizing in a single measure how capital markets are functioning to fund investment
 - Recent CMDI deterioration is generally consistent with past tightening cycles
- Similarly, we could build an index of women in finance
 - Probably at historical highs, but moving sideways
 - Low in absolute levels
 - Women are less than 16% of mutual fund managers
 - 23% of financial services c-suite
 - 30% of economics majors
 - 15% of tenured economics professors

