J.P.Morgan

North America Fixed Income Strategy
04 April 2025

U.S. Fixed Income Markets Weekly

Cross Sector *P. White, L. Wash, M. Herckis*
We revise real GDP growth lower and push our inflation projections higher. We now look for the Fed to ease by 150bp with the first cut in June, and we lower our Treasury yield forecasts. We added longs in 2-year Treasuries and continue to hold 2s/5s steepeners. We maintain longs in 5Yx5Y inflation swaps on a hedged basis. We see swap spreads biased narrower going forward, and we remain bullish on vol. We revise our HG spread target 35bp wider to 125bp, though strong fundamentals, elevated yields, and other factors may keep spreads below prior peaks. Mortgages outperformed credit this week, but it's still too early for money managers to shift from MBS back to HG credit.

Governments *J. Barry, P. White, L. Wash*
On the back of a change to our Fed call, we now expect 2- and 10-year yields to reach 2.70% and 3.65%, respectively, by year end, versus 3.65% and 4.15% previously. We recommended adding duration longs in 2-year Treasuries earlier this week and maintain 2s/5s steepeners. Stripping activity was modest in March and with Coup/P spreads looking fairly valued, we see two sided risks. We also revise our breakeven targets and now see 10-year breakevens at 215bp at year-end, versus 225bp previously. Maintain 5Yx5Y inflation swap longs hedged with a beta-weighted long in nominal swaps.

Interest Rate Derivatives *S. Ramaswamy, I. Ozil, P. Michaelides, A. Parikh*
Following this week's tariff announcements, implied distributions have consolidated weights around deep cut scenarios. 1Y forward steepeners anchored in the front end offer more asymmetrically positive exposure to Fed easing - initiate 18M forward 2s/10s swap curve steepeners. Conditionally position for a reversal of recent moves - initiate 7s/30s conditional bear flatteners using 6M expiry payer swaptions, financed by selling a risk weighted amount of 6Mx3Y payer swaptions. Stay bullish on volatility - prior risk-off episodes suggest that implieds have more room to rise - initiate 1Yx2Y swaption straddle longs. The abrupt shift in market tone may result in banks taking action to curtail their balance sheets, which biases us towards narrower swap spreads in the near term.

Short-Term Fixed Income *T. Ho, P. Vohra, M. Herckis*
Repo level stability should persist in the near term, but the tax season may temporarily increase funding pressures. MMFs are likely to favor repo and short-dated T-bills over X-date T-bill maturities. Despite soft funding conditions, we see limited room for front SOFR/FF basis contracts to widen.

MBS and CMBS *J. Sim*
With recession risks rising, mortgages should serve as a relative safe haven, but won't be entirely immune. Market sentiment took a big hit this week on tariff news. Also, this week, we discuss March remit trends centered around SASB and multifamily delinquencies.

See page 170 for analyst certification and important disclosures.

Fixed Income Strategy

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Contents

Summary of Views	3
US Fixed Income Overview	4
Economics	12
Treasuries	16
Technical Analysis	23
TIPS Strategy	27
Interest Rate Derivatives	32
Short-Term Fixed Income	47
US Agencies and $-SSAs	52
Agency MBS	56
RMBS Credit Commentary	69
CMBS Weekly	74
Asset-backed Securities	94
Corporates	102
High Yield	116
CLO	121
Credit Derivatives	125
Municipal Markets Weekly	132
Emerging Markets	159
Forecast & Analytics	162
Market Movers Calendar	169

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ABS and CLOs *A. Sze, R. Ahluwalia*
Activity in the ABS market was muted as investors observed Liberation Day throughout the week; despite broad uncertainty, ABS continue to offer a safe haven with relatively attractive spreads.

Investment-Grade Corporates *E. Beinstein, S. Doctor, N. Rosenbaum, S. Mantri*
High tariffs increase U.S. recession risk. We raise our YE25 HG bond spread target to 125bp. However, strong fundamentals, yields above 5%, resilient domestic flows, and likely negative net supply may keep spreads below some prior recession peaks.

High Yield *N. Jantzen, T. Linares*
High-yield bond yields and spreads increased 30bp and 62bp over the past week to 7.98% and 422bp, respectively. And leveraged loan prices endured their largest setback since March 2023 (-$1.10 w/w) with spreads gapping out 41bp to a 13-month high 503bp.

Municipals *P. DeGroot, Y. Tian, R.Gargan*
Next week's heavy calendar will likely be met by continued rate volatility, headline risk around tariffs and legislation, as well as the release of tier 1 data. Despite these dynamics, if UST rates stabilize or rally further, we expect municipal fund inflows driven by improved asset class returns, with additional demand likely from relative value focused investors.

Emerging Markets *L. Oganes*
In EM fixed income, we are MW GBI-EM local rates, and are UW CEMBI and EMBIGD. EM bond flows were -$140mn (-0.04% of weekly AUM, ↓ from -$72mn).

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Summary of Views

SECTOR	CURRENT LEVEL Apr 4, 2025	YEAR END TARGET Dec 31, 2025	COMMENT
Treasuries			
2-year yield (%)	3.67	2.70	Maintain 2Y duration longs. Maintain 2s/5s steepeners to hedge risks of a deeper cutting cycle. Maintain 1s/2s/5s belly richening butterflies. Maintain 20s/30s flatteners.
10-year yield (%)	3.99	3.65	
Technical Analysis		**1H25**	
2-year yield (%)	3.67	3.75	The aggressive fourth quarter backup favors more range than bull trend in 1H25
10-year yield (%)	3.99	4.25	We expect more range action in the months ahead.
10s/30s curve (bp)	40	35	We think the curve can steepen back to longer-term range resistance.
TIPS			
10-year TIPS breakevens (bp)	229	215	Maintain longs in 5Yx5Y inflation swaps paired with a beta-weighted hedge in nominal swaps
Interest Rate Derivatives		**1H25**	
2-year SOFR swap spread (bp)	-21	-16	1Y forward steepeners anchored in the front end offer more asymmetrically positive exposure to Fed easing - initiate 18M forward 2s/10s swap curve steepeners. Conditionally position for a reversal of recent moves - initiate 7s/30s conditional bear flatteners using 6M expiry payer swaptions, financed by selling a risk weighted amount of 6Mx3Y payer swaptions. Stay bullish on volatility - prior risk-off episodes suggest that implieds have more room to rise - initiate 1Yx2Y swaption straddle longs. The abrupt shift in market tone may result in banks taking action to curtail their B/S, which biases us towards narrower swap spreads in the near term.
5-year SOFR swap spread (bp)	-34	-33	
10-year SOFR swap spread (bp)	-49	-47	
30-year SOFR swap spread (bp)	-83	-82	
Agency MBS		**1H25**	
FNMA 30yr 5.5% Front Tsy OAS (bp)	26	25	With recession risks rising, mortgages should serve as a relative safe haven, but won't be entirely immune
RMBS Credit		**1H25**	
CRT M1B/M2 (DM@10CPR)	1MS + 177bp	1MS + 160bp	Jumbo AAA are about 8-15bp wider (or 4-8 ticks) as liquidity becomes an increased focus. While shorter duration non-agency assets like CES/HELOC, 2.0 FCF and non-QM AAA/AA spreads may have room to leak wider, this is the segment that is likely to attract the most RMBS investors.
RMBS 2.0 PT (6.0s)	1-04bk of TBA	1-00bk of TBA	
AAA Non-QM	I + 145bp	I + 140bp	
ABS		**1H25**	
3-year AAA card ABS to Treasuries (bp)	41	25	We see sentiment-driven weakness, with potential for more spread tiering and steeper credit curve, as an opportunity to acquire cheap high-quality ABS including IG-rated subordinated auto ABS and senior unsecured consumer loan and student loan ABS.
CMBS			
10yr conduit CMBS LCF AAA	J+102	J+75	We continue to think trophy office SASB should be more insulated from tariff impact. Agency CMBS also stands out as a lower volatility segment for weathering the storm.
10yr Freddie K A2	J+49	J+35	
Investment-grade corporates			
JULI spread to Treasuries (bp)	125	125	Recent tariffs are clearly negative and uncertainties are at a fresh YTD high - this warrants a moderately wider spread forecast of 125bp.
High yield		**1H25**	
Developed HY Bond Index Spread to worst (bp)	422	550	We believe elevated recession risks will translate into higher yields and spreads in 2Q of 9.0% and 550bp, respectively.
Credit Derivatives		**1H25**	
High Grade (bp)	67	43	US cash bonds (HG and HY) screen cheap relative to their European counterparts on a cross currency adjusted basis as credit markets have been focused on outright credit yields amidst rising European rates and declining US rates.
High Yield	$103.7/409bp	$110/265bp	
Short-term fixed income			
EFFR (%)	4.33	3.10	We expect MMF AUMs to remain elevated this year due to a shallower easing cycle. We anticipate that QT will conclude at the end of 1Q26 and expect SOFR to trade flat to EFFR throughout the year. T-bill/OIS and CPCD/OIS spreads are expected to widen in the second half, with more pronounced widening in longer-dated maturities, leading to steeper spread curves.
SOFR (%)	4.39	3.10	
CLOs			
US CLO Primary AAA (Tier 1, bp)	124	SOFR + 150	We widen our YE25 base case T1 AAA spread forecast to 150bp (from the prior 120bp), but are cognisant of the risks in a recession scenario.
Municipals			
10-year muni yield (%)	2.97	2.70	We look for a somewhat better than clip-the-coupon returns over the first-half of 2025, and favor the longer portion of the municipal curve, discounts, housing bonds, AMT, and other out-of-favor structures such as short-calls, AMT bonds, and off-the-run lower rated credits. After a strong start to the year in January, we project challenging municipal net-supply amidst a volatile rate and legislative backdrop, leading to a buying opportunity in the March-May period, before stronger mid-year technicals kick in.
30-year muni yield (%)	3.99	3.70	
Emerging Markets			
Hard currency: EMBIG Div (bp)	366	400	MW EMBIGD
Hard currency: CEMBI Broad (bp)	239	220	MW CEMBI Br
Local currency: GBI-EM yield (%)	6.19%	5.58%	MW local rates

Source: J.P. Morgan

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US Fixed Income Overview

What a long strange trip it's been

- **Economics**: Following Wednesday's tariff announcements, we lower our 2025 real GDP growth target to -0.3% (4Q/4Q) and increase our core PCE forecast to 4.4%. We now see the Fed easing by 150bp starting in June. Looking to next week, we expect core CPI to have increased by 0.24% m/m in March.
- **Treasuries**: On the back of a change to our Fed call, we now expect 2- and 10-year yields to reach 2.70% and 3.65%, respectively, by year end, versus 3.65% and 4.15% previously. We recommended adding duration longs in 2-year Treasuries earlier this week and maintain 2s/5s steepeners. We also revise our breakeven targets and now see 10-year breakevens at 215bp at year-end, versus 225bp previously. Maintain 5Yx5Y inflation swap longs hedged with a beta-weighted long in nominal swaps.
- **Interest Rate Derivatives**: Following this week's tariff announcements, implied distributions have consolidated weights around deep cut scenarios. 1Y forward steepeners anchored in the front end offer more asymmetrically positive exposure to Fed easing - initiate 18M forward 2s/10s swap curve steepeners. Conditionally position for a reversal of recent moves - initiate 7s/30s conditional bear flatteners using 6M expiry payer swaptions, financed by selling a risk weighted amount of 6Mx3Y payer swaptions. Stay bullish on volatility - prior risk-off episodes suggest that implieds have more room to rise - initiate 1Yx2Y swaption straddle longs. The abrupt shift in market tone may result in banks taking action to curtail their balance sheets, which biases us towards narrower swap spreads in the near term.
- **Short Duration**: Repo level stability should persist in the near term, but the tax season may temporarily increase funding pressures. MMFs are likely to favor repo and short-dated T-bills over X-date T-bill maturities. Despite soft funding conditions, we see limited room for front SOFR/FF basis contracts to widen.
- **Securitized Products**: While spread products have generally widened in the wake of the tariff announcements, mortgages have outperformed credit. That being said, it's still too early for money managers to make the big shift from MBS back to IGs. Shorter-duration non-agency assets have room to widen further and could attract RMBS investors.
- **Corporates**: High tariffs increase U.S. recession risk. We raise our YE25 HG bond spread target to 125bp. However, strong fundamentals, yields above 5%, resilient domestic flows, and likely negative net supply may keep spreads below some prior recession peaks.
- **Near-term catalysts**: CPI (4/10), PPI (4/11), Consumer Sentiment (4/11), Retail Sales (4/16), Manufacturing PMI (4/23)

Must Read This Week

An update on our economic outlook, Michael Feroli, 4/4/25
Spread Strategy Spotlight: Dancing in the Dark, Stephen Dulake, 4/4/25
Are you not entertained?, Michael Feroli, 4/3/25
There will be blood, Bruce Kasman, 4/3/25

And Now Hear This…

At Any Rate: U.S. Rates - Signal and noise, Srini Ramaswamy and Ipek Ozil,

Yields fell and spreads widened this week on the back of the Trump administration's tariff announcements. On April 2nd, the President announced a series of reciprocal tariffs, turning out to be more severe than anticipated and surpassing our reasonable 'worst case' scenario of VAT-matching tariffs (see *EM Quick Take: Tariff Turmoil for EM Fixed Income*, Saad Siddiqui, 4/3/25). Beginning on April 5th, there will be a 10% baseline tariff on all imported goods, and on April 9th, a significantly higher reciprocal tariffs will be imposed on countries in which the US has the largest trade deficits; this includes 20% on the EU, 24% on Japan, and 34% on China, increasing the average tariff rate on China to 65%. Tariffs on Mexico and Canada remain unchanged, with non-USMCA compliant goods still subject to a 25%

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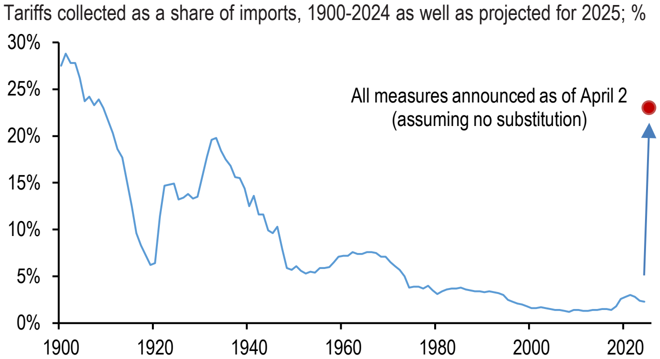
3/31/25

tariff. Our economists' calculations show an increase in the average effective tariff rate from what was 10% to slightly above 23% (**Figure 1**). The path ahead for trade policy remains uncertain, as tariff rates could be negotiated down, but at the same time additional sectoral tariffs, including on pharmaceuticals and semiconductors, are likely underway.

The most readily quantifiable effect of higher tariffs on activity runs through higher inflation, and hence lower real income and lower real consumer spending. The pinch from higher prices that we expect in coming months may hit harder than in the post-pandemic inflation spike, as nominal income growth has been moderating recently, as opposed to accelerating in the earlier episode. **We now expect real GDP to contract under the weight of the tariffs, and for the full year (4Q/4Q) we now look for real GDP growth of -0.3%, down from 1.3% previously** (**Figure 2**). The recession in economic activity is projected to push the unemployment rate up to 5.3%. Even though we have lifted our full-year core PCE inflation forecast by 1.4%-points to 4.4%, we continue to expect a first Fed easing in June. However, **we now think the Committee cuts at every meeting through January, bringing the top of the funds rate target range down to 3.0%.** We continue to perceive that the risk is tilted toward a later start to resumed easing rather than an earlier start. (see *An update on our economic outlook*, Michael Feroli, 4/4/25).

Figure 1: The average effective tariff rate will go from what had been prior to Wednesday's announcement of around 10% to just over 23%

Tariffs collected as a share of imports, 1900-2024 as well as projected for 2025; %



Source: J.P. Morgan, US ITC, Census Bureau

Figure 2: We revise real GDP growth down from 1.3% to -0.3% for the full year (4Q/4Q)

US economic forecast; %

	%q/q, saar					%q4/q4		
	1Q25	2Q25	3Q25	4Q25	1Q26	2024	2025	2026
Real GDP	0	0.5	-1	-0.5	1.5	2.5	-0.3	2
Real consumer spending	0.5	0.3	-0.5	0	1	3.1	0.1	1.2
Core PCE prices	4	5	5.2	3.3	2.1	2.8	4.4	2.1
Unemployment rate*	4.1	4.2	4.5	4.8	5.1			
Fed funds target (%, eop, top of range)	4.5	4.25	3.75	3.25	3			

*Entries are average level for the period
Source: J.P. Morgan

In light of the changes to our economic outlook and the Fed call, we also make revisions to our interest rate forecast. Notably, we lower our year-end 10-year forecast from 4.15% to 3.65%, and our 2-year forecast from 3.65% to 2.70% (**Figure 3**). Additionally, as a result of a shifting risk distribution, earlier this week we recommended adding duration in 2-year Treasuries to position for lower yields. In addition to our long duration position, we continue to hold 2s/5s steepeners. This curve bullishly flattened this week, with the moves front-loaded prior to the Wednesday afternoon tariff announcement. Since then the curve has begun to show positive directionality, steepening as yields decline, and we see room for the curve to steepen further as the markets price in a deeper cutting cycle (see *Treasuries*).

TIPS underperformed sharply, alongside a broad flight-to-quality move, as growth concerns overshadowed the near-term inflationary impact of tariffs. The underperformance was exacerbated by comments from Chair Powell, which excluded the word "transitory" and included the word "persistent" in describing the potential inflation impact from tariffs. Alongside the changes to our economic outlook, we revise lower our breakeven targets and now project 10-year breakevens ending the year at 215bp, versus 225bp previously (**Figure**

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4). Looking ahead to next week's CPI report, we forecast a 0.24% m/m increase in core CPI as well as a 0.09% increase in the headline, bringing the CPI-U NSA index to 320.263, above both Bloomberg consensus and the market fixing, though we think it will require a more material upside surprise to meaningfully lift forward inflation expectations. Meanwhile, tariff news will likely remain front and center for markets. We took profits on energy-hedged 2-year inflation swap longs on Thursday and are hesitant to hold outright long exposure on the inflation curve. We maintain longs in 5Yx5Y inflation swaps hedged with a beta-weighted long in nominal swaps (see *TIPS*).

Figure 3: We lower our 10-year forecast from 4.15% to 3.65% and our 2-year forecast from 3.65% to 2.70%

J.P. Morgan interest rate forecast; %

	Actual 4-Apr	1m ahead 4-May	2Q25 30-Jun	3Q25 30-Sep	4Q25 31-Dec	1Q26 31-Mar
Rates (%)						
Effective funds rate	4.33	4.33	4.10	3.60	3.10	2.85
SOFR	4.39	4.39	4.10	3.60	3.10	2.85
2-yr Treasury	3.67	3.60	3.50	3.05	2.70	2.70
3-yr Treasury	3.64	3.60	3.50	3.25	3.05	3.05
5-yr Treasury	3.71	3.70	3.65	3.30	3.05	3.05
7-yr Treasury	3.83	3.80	3.80	3.45	3.20	3.20
10-yr Treasury	3.99	4.00	3.95	3.75	3.65	3.65
20-yr Treasury	4.42	4.40	4.40	4.20	4.10	4.10
30-yr Treasury	4.39	4.40	4.35	4.20	4.15	4.15

Source: J.P. Morgan

Figure 4: We revise our breakeven targets lower to reflect a weaker growth trajectory over the balance of the year

Spot breakevens and real yields, breakeven targets, and real yield levels based on those targets; units as indicated

	Actual 4-Apr-25	2Q25 30-Jun-25	3Q25 30-Sep-25	4Q25 31-Dec-25	1Q26 31-Mar-26
Breakevens (bp)					
5Y	239	225	215	210	215
10Y	218	215	210	215	220
30Y	212	215	210	215	220
Real yields (%)					
5Y	1.31	1.40	1.15	0.95	0.90
10Y	1.81	1.80	1.65	1.50	1.45
30Y	2.27	2.20	2.10	2.00	1.95

* Targets for real yields are based on our nominal yield forecasts and breakeven targets
Source: J.P. Morgan

In derivatives, we note that 1Y forward curve steepeners look more attractive than spot steepeners. We also favor conditionally positioning for a retracement of recent moves by initiating a bear flattening exposure in the 7s30s sector, financed by selling 15% of the risk in 6mx3y payers, at zero net premium. Swap spreads across the curve are narrower by ~3-4bp, except for the 20-year sector where swap spreads are almost 6bp narrower. The dramatic underperformance of the 20-year sector (which has historically been the most sensitive to balance sheet constraints) is a worrisome sign. We think the dynamic of sudden growth in bank credit to corporates (via draws on credit lines) is likely to bring about an abrupt tightening in balance sheet availability for Treasuries, and this has the potential to impact swap spreads in a somewhat nonlinear fashion. Therefore, until and unless corporate credit conditions stabilize and the impact on bank balance sheets becomes clearer, we see swap spreads as biased narrower going forward. Turning to vol, implieds likely have more room to climb in the current episode, and history suggests that implieds will be slow to retrace. Therefore, we see risk-reward considerations as favoring a bullish position on volatility, despite the sharp run up already seen this week. (see *Interest rate derivatives*).

Despite volatility across fixed income markets, repo was relatively stable this week. Perhaps taking a cue from quarter-end where SOFR rose 7bp to 4.41% and was still dealing with the overhang in the days after, SOFR/FF basis narrowed 0.5-1bp across the curve. Still, funding conditions remained well-behaved with GC trending lower this week. We think this stability can be sustained, as large risk-off episodes tend to bring flows into MMFs. There is low conviction for money managers to extend out the curve given the heightened uncertainty. Therefore focus will be on shortening duration and shoring up liquidity amidst the volatility, which translates to heavy demand for repo in 1-3 month maturities. T-bill paydowns should also continue to provide softer repo funding conditions. We continue to believe there is limited room for SOFR to soften meaningfully below 4.30%, as concentrated repo supply and

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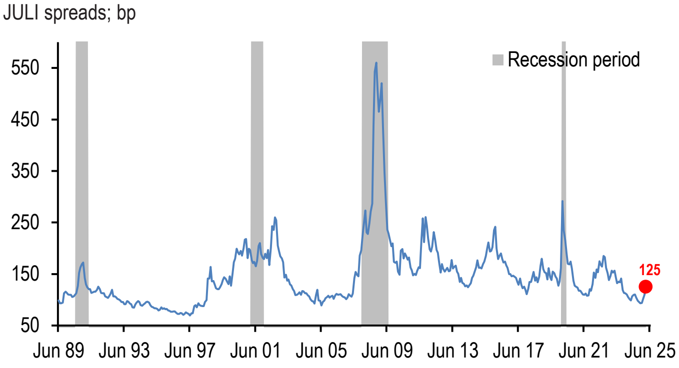
counterparty limits between MMFs and dealers challenge funds in how much they can do with other dealers for repo transactions (see *Short-term fixed income*).

Turning to credit markets, we think attractive all-in yields, strong balance sheets, materially extended corporate liability profiles, and still low default and delinquency rates all mean that the credit market reaction function to a recession, if realized, suggests spreads potentially peaking below the 200bp-ish and 900bp-ish average levels over the past three decades. However, it is clear that the left-hand tail of the risk distribution has become fatter and likely inhibits proactive risk-taking for now, with the risk of further bleed. How would we allocate capital in a spreads portfolio context today? Agency MBS still look attractive-ish versus High Grade Corporates, US primary AAA-rated and secondary AA-rated tranches and European loans hedged into dollars. We also think the implied spread breakevens from selling ATM vol on credit index options are beginning to look attractive too (see *Spread Strategy Spotlight*, Stephen Dulake, 4/4/25).

In credit, we revise our forecast for HG spreads 35bp wider to end 2025 at 125p, roughly in line with current levels, and are calling for wider spreads overall for the first time since Q4 2022. That said, JULI typically reaches north of 160bp in a traditional recession and our revised forecast is below this due to a few factors (Figure 5). **First**, credit fundamentals are entering this period of uncertainty from a strong position, with the BBB- share of our HG index at an all time low of 8.6% (Figure 6). **Second**, all-in yields are still elevated. Domestic fund flows should remain resilient as total returns are unlikely to dip meaningfully given the rally in rates. The foreign demand side is likely to turn more negative, as retaliatory measures could lead to curtailed demand from certain countries and BoJ rate hikes are likely off the table for now. That said, EUR hedging costs could move lower if more Fed cuts get priced back in. Supply should also fall if capex is going to slow materially, raising the chances of negative net supply in the near term as we are in the midst of peak maturity season for 2025. HG supply hit records highs in Q1, and HG technicals remain in good shape and may improve in April with negative net issuance more likely now. The net of all the changes over the past 24 hours is clearly negative but uncertainties in both directions are at a fresh YTD high - this warrants a moderately wider spread forecast of 125bp (see *Corporates*).

Figure 5: JULI has typically reached north of 160bp in a traditional recession and our new forecast is well below this at 125bp for YE25

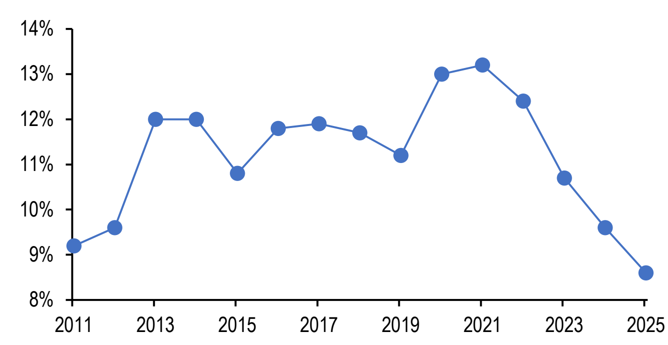
JULI spreads; bp



Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 6: BBB- debt share of our HG index at 8.6% is a record low

BBB- debt share of JULI; %



Source: J.P. Morgan

High-yield bond yields and spreads increased 30bp and 62bp over the past week to 7.98% and 422bp, respectively. And leveraged loan prices endured their largest setback since March 2023 (-$1.10 w/w) with spreads gapping out 41bp to a 13-month high 503bp. While tariff rates could be negotiated down over the coming months, we believe tensions could escalate near-term via the introduction of sectoral tariffs and some form of retaliation by trading partners. Regardless, the lingering uncertainty surrounding tariffs is likely to negatively impact business and consumer sentiment and lead to a weaker labor market and an active debate on recession probabilities. We believe these conditions will be accompanied by higher yields and spreads for leveraged credit. Thus, we recently introduced a 2Q25 target for HY yields and spreads of 9.0% and 550bp. To be clear, we believe the high-yield product is uniquely positioned to "weather the storm" due to low defaults (1Q HY default rate 0.5% annualized), ample liquidity post a record refi wave ($610bn in 2024), solid balance sheets, historically strong credit quality (51% BBs), attractive yields, and supportive technical (light net issuance, elevated cash balances). That said, spread premiums should rise alongside the escalation in macro uncertainty. As such, we also introduce a 2Q target for leveraged loan spreads of 650bp as a slowing economy will weigh on technicals and redirect attention to the asset classes' weaker balance sheets. That said, the tail risk surrounding loan default rates has been diminished by the past 5 quarters' surge in refinancing by lower-rated credits (see *High Yield*).

We revise our YE25 base case CLO T1 AAA spread forecast 30bp wider to 150bp, and we lower our CLOIE return forecast to +4.0% from +6.5%. We also revise our new issue forecast from $180bn to $150bn. These revisions come with risk of wider spreads and lower returns were the Fed to ease more aggressively in a recession scenario and front-end yields drop more quickly. As we think the credit curve further steepens, we prefer T1 US CLO AAA in primary (the highest liquidity and quality) and US CLO AA secondary (spread pick-up and low credit risk, albeit less liquidity). Given the latest tariff announcements, we anticipate the rising risks will deter investors more than rising spreads will attract them, especially given CLOs' floating-rates and highly-leveraged underlying. (see *CLOs*).

In contrast to HG credit, mortgages held in reasonably well in the wake of the tariff announcement although the uptick in implied vol meant some underperformance versus rates. While corporates underperformed (see Figure 7), the move is still relatively muted, and they've mostly reversed their 2024 tightening, so we think it is likely too early for money managers to make their big shift away from MBS (**Figure 8**). If we do move into a recession however, HG spread widening would likely encourage this shift. Given that money managers are the marginal MBS buyers, that could widen spreads, but increased bank demand may also serve as a buffer. The rally in rates reignited some prepayment fears in higher coupons, and should translate to an uptick in application volume to be felt in realized speeds later this month or early May. We haven't yet seen quite the same decline in primary rates as 10yr yields, and both remain higher than the September 2024 lows that sparked a significant S-curve steepening. We think with recession risks rising, mortgages should serve as a relative safe haven, but won't be entirely immune (see *Mortgages*).

Meanwhile in resi credit, Jumbo AAA are about 8-15bp wider (or 4-8 ticks) as liquidity becomes an increased focus. We do not expect to see a lot of conviction in the market right now. While shorter duration non-agency assets like CES/HELOC, 2.0 FCF and non-QM AAA/AA spreads may have room to leak wider, this is the segment that is likely to attract the most RMBS investors. There is not much appetite to add risk down the capital structure, but as spreads potentially widen along with HY corps we should see attractive entry points once again. **It also seems like an attractive (and cheap) time to buy tail risk protection entering into a spread trade of long CDX.IG 10yr and short corporate cash 10yr (non-financials) as a hedge against a major blowout in spreads** (see *RMBS*).

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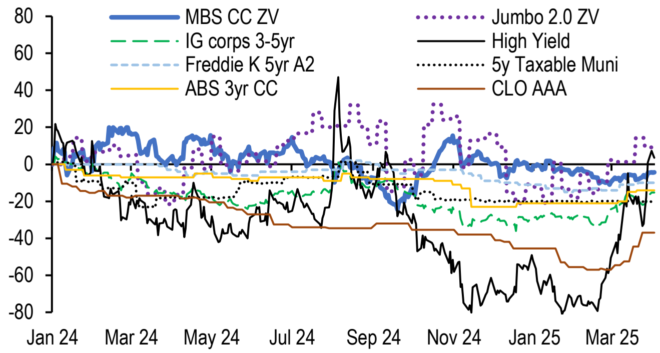
Figure 7: While credit spreads have recently underperformed the relative stability of mortgages...

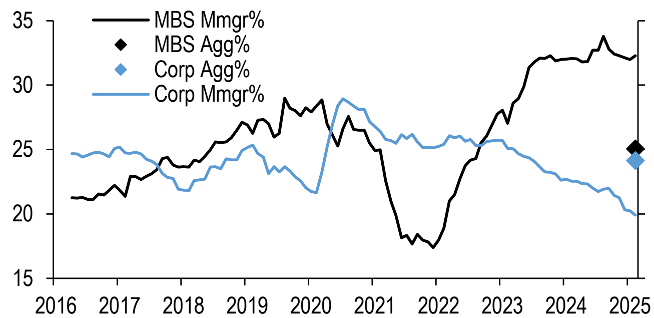
Spread changes since YE 2023 on various spread products; bp



Source: J.P. Morgan

Figure 8: ...the move isn't large enough to spark the great rotation out of MBS and into IGs

MBS and Corp weightings of active money managers vs the Bloomberg Agg; %



Source: J.P. Morgan, Bloomberg Finance L.P.

Activity in the ABS market was muted as investors observed Liberation Day throughout the week and saw limited issuance and softer spreads. With increasing recession odds, we have seen spread widening across ABS, but credit curves remain relatively flat and there remains relatively little sponsor tiering on subordinates. On the plus side, ABS are well structured to withstand stress, comparable to the credit rating, across the capital stack. However, recession scenarios incorporate greater sponsor/idiosyncratic risks for ABS. As such, BBB and BB auto ABS indicative spreads, similar to unsecured corporate credit, remain close to the tight end of recent ranges. **Regardless of the recession forecasts, relative valuations point to more room for outperformance in ABS than comparable credits. In addition, high quality, liquid, plain vanilla ABS remain a well-fortified and proven safe haven in periods of uncertainty and volatility** (see *ABS*).

In the CMBS market, spreads widened overall, with 10yr conduit LCF AAAs widening 8bp week-over-week to J+102 while single-As widened 65bp to J+260. As for tariff impact on CMBS, industrial warehouse deals are at risk with potential supply chain disruption and reduced consumption. Consumer-adjacent segments such as hotels are also exposed, as hotel cashflows react quickest to growth slowdown. **We anticipate the spread curve to bearishly steepen, and although there aren't many places CMBS investors can hide during periods of market volatility, we think trophy office SASB should be more insulated from tariff impact. We also prefer Agency CMB as a lower volatility segment for weathering the storm, and we prefer to add high quality CMBS at wider spreads** (see *CMBS*).

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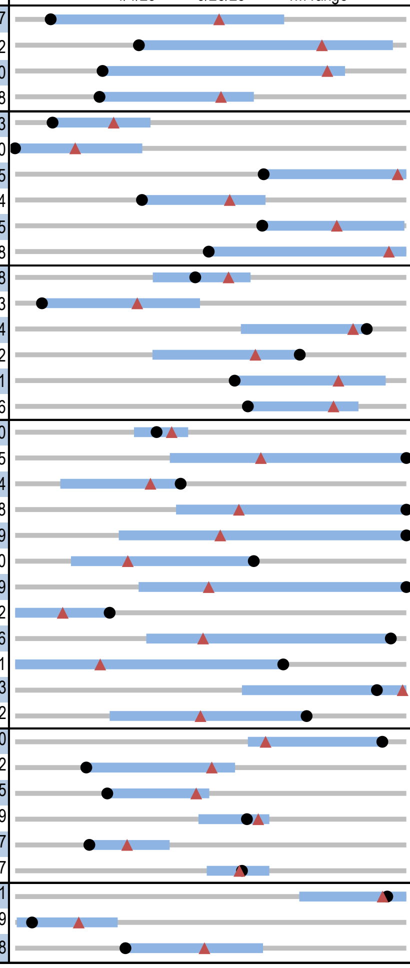
Figure 9: Cross sector monitor

Current levels, change since 3/28/25, 1-year average, minimum, maximum, and current z-score for various market variables; units as indicated

		Current	Chg from 3/28	1Y avg	1Y min	1-year range: ● 4/4/25 ▲ 3/28/25 ▬ 1M range	1Y max	Z-score
Global equities (level)	S&P 500	5074	-9.1%	5645	4967		6144	-1.8
	E-STOXX	4878	-8.5%	5009	4572		5541	-0.6
	FTSE 100	8055	-7.0%	8308	7820		8871	-1.2
	Nikkei 225	33781	-9.0%	38469	31458		42224	-3.5
Sovereign par rates (%)	2Y US Treasury	3.68	-23.7	4.29	3.53		5.05	-1.6
	2Y Germany	1.80	-19.0	2.36	1.80		3.05	-1.5
	2Y JGB	0.60	-24.4	0.47	0.15		0.86	0.7
	10Y US Treasury	3.93	-27.1	4.20	3.54		4.75	-1.0
	10Y Germany	2.58	-16.0	2.42	2.05		2.89	0.9
	10Y JGB	1.18	-37.3	1.08	0.78		1.59	0.5
Funding spreads (bp)	2Y EUR par swap/gov't spd	165	-8.7	177	118		220	-0.5
	2Y USD par swap/gov't spd	-22	-4.0	-16	-23		-7	-1.4
	EUR SOFR-OIS spd	224	2.7	195	154		232	1.7
	USD SOFR-OIS spd	3	0.9	1	-2		5	0.9
	1Y EUR-USD xccy basis	-5	-3.0	-5	-11		0	0.0
	1Y USD-JPY xccy basis	-37	-3.3	-36	-46		-31	-0.2
Credit spreads (bp)	30Y FNCL 4.5% Front Tsy OAS*	29	-1.0	31	20		46	-0.3
	10Y AAA new issue CMBS spd to swaps	128	16.0	106	85		128	2.3
	3Y AAA card ABS spd to SOFR	45	2	48	34		60	-0.3
	JULI portfolio spd to Tsy	125	15.7	102	88		125	3.1
	JPM US HY index spd to worst	462	82.2	332	289		462	4.9
	EMBIG Div spd to worst	383	38.6	355	310		430	0.9
	CEMBI Broad spd to worst	251	31.3	216	189		251	2.5
	iBoxx Euro HG spd to govies*	67	2.7	72	62		84	-0.9
	US Financials spd to Tsy	112	18.1	91	76		114	2.6
	Euro Financials spd to govies	113	22.0	103	81		128	1.0
	10Y AAA muni spd to Tsy	-102	-6.4	-141	-193		-94	1.8
	10Y AA taxable muni spd to Tsy*	66	5	62	52		71	1.0
Currencies	EUR/USD*	1.112	2.7%	1.075	1.020		1.118	1.6
	USD/CHF*	0.856	-2.8%	0.886	0.842		0.920	-1.4
	USD/JPY*	145.45	-3.2%	152.32	140.45		161.67	-1.4
	JPM Trade-weighted USD index	113.46	-0.2%	112.26	108.89		116.60	0.6
	GBI-EM Global FX index	78.11	-0.5%	79.20	77.27		81.71	-1.1
	Bitcoin spot	84130	0.4%	75661	52857		106789	0.5
Commod-ities	Gold futures ($/t oz)*	3097	0.3%	2597	2261		3140	2.2
	Brent oil futures ($/bbl)*	70.14	-3.6%	77.94	69.19		91.17	-1.4
	LME Copper 3M rolling forward ($/tonne)*	9367	-4.4%	9487	8768		10889	-0.3

Source: J.P. Morgan, Bloomberg Finance L.P., ICE, IHS Markit
* 4/03/25 levels for 30Y FNCL, iBoxx Euro HG, AA taxable munis, EUR/USD, USD/CHF, USD/JPY, gold, brent oil, and copper; 4/04/25 levels for all others

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Figure 10: YTD returns on various fixed income indices; %

Index	Since last publication (3/28/2025)	Year-to-Date (as of 4/4/2025)
USD Cash	0.09%	1.2%
Aggregate GABI	-0.28%	2.0%
UST Agg	1.39%	4.0%
UST 1-5y	0.64%	2.5%
UST 5-10y	1.67%	5.0%
UST 10y+	3.06%	7.0%
UK	1.20%	3.3%
Germany	2.71%	5.0%
Italy	2.15%	5.4%
Japan	5.93%	7.0%
EM Sovereign	-0.46%	1.9%
Agencies	0.78%	2.9%
FN 3.0%	2.32%	5.5%
FN 2.5%	2.41%	5.6%
FN 2.0%	2.36%	5.6%
ABS Fixed	0.33%	2.0%
HG Bonds	0.57%	2.7%
AAA	1.00%	3.4%
AA	0.75%	2.9%
A	0.65%	2.8%
BBB	0.45%	2.6%
Fin	0.40%	2.6%
Non-Fin	0.65%	2.8%
HY Bonds	-1.73%	-1.0%
BB	-1.06%	0.4%
B	-2.05%	-1.6%
CCC	-4.14%	-5.7%
EM Corporate	-0.27%	2.2%
CLOIE	-0.01%	1.0%
JUSTINE	0.72%	4.4%

Source: J.P. Morgan

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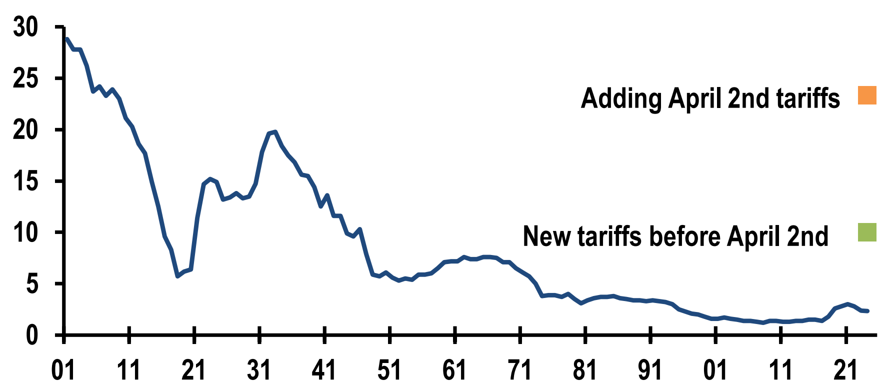
Economics

- **An extremely hawkish change in trade policy has led us to project the economy will slip into recession**
- **While stagflation poses a dilemma for the Fed, we believe the FOMC will ultimately resume cutting rates**
- **In early March, before trade tensions got super-elevated, labor demand remained solid**
- **March core CPI, reported next week, expected up 0.24%, or 3.0% over a year ago**

"Where were you the afternoon of April 2, 2025?" is a question that economists and market participants may be asking years from now. That was when, in a party-like atmosphere, the US president single-handedly dismantled the post-war global trading regime. A minimum tariff of 10% on most imported goods begins on April 5. And starting April 9, higher country-specific rates will go into effect, with the rate depending on the size of the country's bilateral trade surplus with the US. On a static basis that lifts the effective tariff rate to over 20%, a level not seen since the early 20th century (Figure 1). In assessing how the higher-than-expected tariffs will affect growth, we come to the conclusion that we are likely heading into a recession in coming quarters.

Figure 1: Tariffs collected as a share of imports

Percent, annual. Estimated 2025 tariff rates assume import elasticity of 0



Source: US ITC, Census Bureau, J.P. Morgan

In our updated outlook we now look for real GDP growth this year (4Q/4Q) of -0.3%, down from 1.3% previously. The recession in economic activity is projected to push the unemployment rate up to 5.3% (Figure 2). Even though we have lifted our full-year core PCE inflation forecast by 1.2%-points to 4.3% we continue to expect a first Fed easing in June. However, we now think the Committee cuts at every meeting through January, bringing the top of the funds rate target range down to 3.0%. We continue to perceive that the risk is tilted toward a later start to resumed easing rather than an earlier start.

The most readily quantifiable effect of higher tariffs on activity runs through higher inflation, and hence lower real income and lower real consumer spending. The pinch from higher prices that we expect in coming months may hit harder than in the post-pandemic inflation spike, as nominal income growth has been moderating recently, as opposed to accelerating in the earlier episode. Moreover, in an environment of heightened uncertainty consumers

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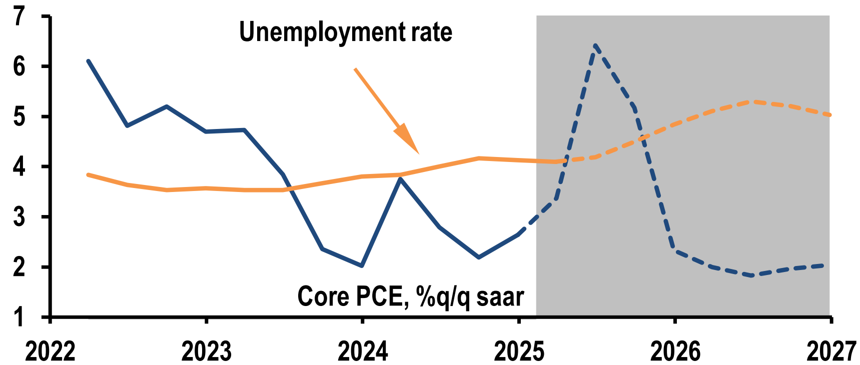
may be reluctant to dip too far into savings to finance spending growth.

Figure 2: Core PCE and unemployment rate forecasts

Percent, sa



Source: BEA, BLS, J.P. Morgan

Since Wednesday night we have also become marginally more confident that retaliatory actions will hit gross exports. Notably, China has already announced tariffs in response to the president's actions. Finally, we haven't learned much new on how trade policy uncertainty is expected to affect investment spending, but we have no reason to revisit our prior conclusion that this uncertainty will be a headwind to capex growth later this year.

We expect the weakest months to be concentrated in the middle of the year. Even so, from a quarterly perspective we look for contractions in 3Q and 4Q. This partly reflects the odd dynamics of imports and inventories in 1Q (imports surging; inventories doing nothing notable) to be reversed in 2Q, thereby supporting current-quarter GDP outturns. Moreover, we think we may still see some residual front-loading of spending in the very early part of April. Finally, as we observed previously, the drag on investment spending may take some time to materialize.

This outlook is conditioned on the announced tariffs, along with additional likely sector tariffs, remaining mostly in place. Of course it is possible that the tariffs have been set so high to begin with so that they can then be whittled down in a series of deals. Were that to happen we would naturally re-assess our outlook, though the fact that they've been announced at all suggests that trade barriers and uncertainty could remain well higher on a permanent basis. For example, the 10% floor announced on imports from outside North America could be an enduring outcome. In addition, it's possible that tariff revenue will become increasingly important in paying for other tax cuts in the Republican agenda.

To that point, the Senate this week released their proposed budget resolution, which not only extends the TCJA but allows for an additional $1.5 trillion in tax cuts over FY25-34. Factoring in some other spending increases and interests costs this could add $7tr to the debt relative to current law over the next 10 years, in the absence of other spending cuts. The final reconciliation bill could include such cuts, though the budget resolution does not formally require them, suggesting Congress may not agree on what to cut. Tariff revenue would be one workaround here. At current levels, tariffs would bring in more than $600bn/year were there no offsets from lower imports, worse GDP, or payments to firms hurt by tariff retaliation. In that static scenario, federal revenue would increase to over 19% of GDP, near historical highs (Figure 3). Of course offsets are likely, though the static case is useful in highlight-

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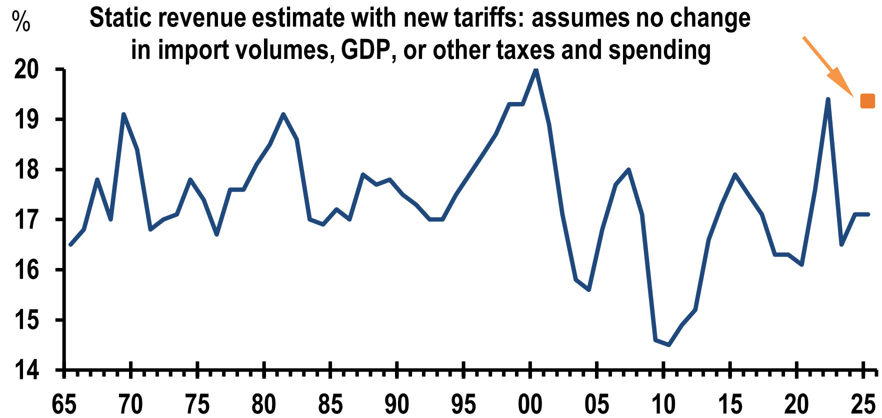
ing that Congress may start to try to use tariff income to pay for other taxes.

Figure 3: Federal revenue as a % of GDP



Source: CBO, J.P. Morgan

What was was pretty good

In a normal week we would likely have led this essay with a discussion of the March employment report, which was generally favorable. Nonfarm employment surprised to the upside in March, increasing by 228,000, albeit after 48,000 downward revisions to the estimates for the prior two months. Most of the other details of the report were less surprising. The unemployment edged up a hair, from 4.14% in February to 4.15% last month. The average workweek was stable at 34.2 hours after ticking up the prior month. Average hourly earnings increased 0.3% last month and rose at a 3.7% annualized pace in 1Q.

Were it not for this week's tariff news, the March jobs numbers could have been seen as a Goldilocks report of solid job growth alongside moderating wage inflation trends. The reference week for the report, March 9-15, makes it seem a little dated, but at least it's good news that hiring wasn't already weakening before the turbulence caused by the shock from trade policy.

In some of the details of the report, federal employment slipped 4,000, with presumably more reductions to come, while state and local governments added 23,000 jobs. Within the 209,000 increase in private employment, the 12,000 increase in goods-producing employment was entirely accounted for by ongoing gains in construction employment. Private service jobs were up 197,000, led once again by health care which tacked on another 78,000 jobs. Like construction, leisure and hospitality may have benefited from better seasonally adjusted weather conditions and saw employment up 43,000. In fact, the SF Fed's weather-adjustment model suggests that good weather may have boosted the headline number by around 150,000 (Figure 4).

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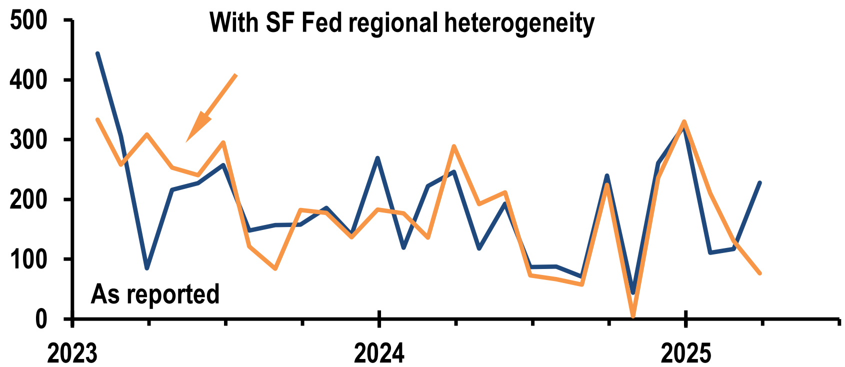
Figure 4: Payroll changes, as reported and with weather adjustment
m/m ch, 000s, sa



Source: BLS, SF Fed, J.P. Morgan

The labor force participation rate ticked up to 62.5% in March after moving down two ticks the prior month. Prime-age participation fell 0.2%-point while both youth and older participation moved higher. The offsetting moves in the participation and unemployment rates left the employment-to-population ratio steady at 59.9%, which is close to where it has been the last three years.

Other developments

This week also brought the final round of March business surveys. As expected, the final PMI and ISM manufacturing surveys confirmed that activity stalled or contracted slightly in that sector after some strength earlier in the quarter, while price pressures rose. The PMI composite declined from 52.7 in February to 50.2 in March, and the ISM likewise fell from 50.3 to 49.0. These are not particularly bad outcomes by the standards of the last couple years, and in the PMI survey the future output index remains at a good level despite falling over the last couple months. The bigger worry is if this is the start of a more sustained fall. While the administration is attempting to use tariffs to boost domestic manufacturing, the sector weakened during the first Trump trade war in 2018-19.

The services surveys were on the whole not bad, with business activity in the PMI rebounding from 51.0 to 54.4 and in the ISM from 54.4 to 55.9. The tone of the rest of the PMI report was similar to business activity, though in the ISM survey new orders kept trending down and employment fell near cycle lows.

Excerpted from, *United States Data Watch* , Michael Feroli, April 04, 2025

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Treasuries

We are accidents...waiting to happen

- Yields declined precipitously following President Trump's "Liberation Day" announcement on Wednesday afternoon, aided by a sharp decline in risk assets and retaliatory announcements from other countries
- If sustained, this year's 20+%-pt tariff increase would be the largest US tax hike since 1968: we lower our growth forecasts from 1.3% to -0.3% and raise our core PCE forecasts by 1.4%-pts to 4.4%. Given weakening growth and loosening labor markets, we now project the Fed will ease 150bp in 2025 (versus 50bp previously), with cuts resuming in June...
- ...We adjust our interest rate forecasts to reflect this environment, lowering our YE 10-year forecast from 4.15% to 3.65% and our 2-year forecast from 3.65% to 2.70%...
- ...if a deeper recession ensues, our scenario analysis indicates there are downside risks to our rates forecasts: we recommended adding longs in 2-year Treasuries this week, and recommend maintaining 2s/5s steepeners to hedge against the risks of a deeper easing cycle
- Stripping activity totaled $1.8bn in March, more than the $0.9bn of net reconsitutions in February, but below prior three-month averages. Stripping demand remains concentrated at the tip of the curve
- Coup/P spreads have tightened aggressively this year, driven by reduced P demand and increased risk appetite for balance-sheet intensive, less liquid securities. Coup/P spreads now appear fairly valued against their drivers and given risks of weakening growth and declining liquidity conditions, and risks appear more two-sided now. Along the curve, Coups in the 2046-2047 sector look rich, while the tip of the curve offers more value

Market views

Treasury yields declined precipitously in the wake of President Trump's "Liberation Day" announcement on Wednesday afternoon, retaliatory announcements from China and other countries, and an accompanying 8-9% decline in broad equity indices. The President invoked his authority under IEEPA to declare a minimum 10% tariff rate on all countries, and additionally imposed individualized reciprocal higher tariff rates on the countries with which the US has the largest trade deficits, effective April 9. With this announcement, the average effective tariff rate has now more than doubled, from around 10% to just over 23%, the highest level in more than a century (see *Are you not entertained?*, Michael Feroli, 4/2/25). Even a solid labor market report did little to assuage fears, as the data appears stale in the wake of this week's news: nonfarm payrolls rose 228k in March (consensus: 140k), though there were downward revisions of 48k to the prior two months. The unemployment rate rounded up from 4.1% (4.14%) to 4.2% (4.15%), while the participation rate rose from 62.4% to 62.5%, and the U6 rate declined 0.1%-pt to 7.9% (see *Last curtain call for Goldilocks*, Michael Feroli, 4/4/25).

Against the backdrop of these developments, 2-, 5-, 10-, and 30-year yields declined 24bp, 27bp, 27bp, and 24bp, respectively this week, the biggest one-week decline since the rally in early-August on the heels of weak employment growth and the unwind of the Yen carry trade. The rally was global in nature, with government bond yields falling across the DM(**Figure 11**). Front-end yields have retraced to their local lows seen just after the Fed's surprise 50bp cut last September, hastened by weakening liquidity conditions: duration-

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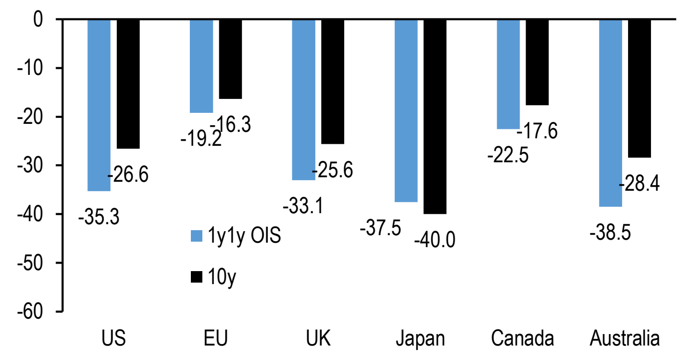
weighted market depth declined 45% this week, back to levels briefly seen around year-end, and before that, the Election Day in November and the unwind of the JPY carry trade in August (**Figure 12**).

Figure 11: Treasury yields fell precipitously this week, alongside other DM government bond yields...

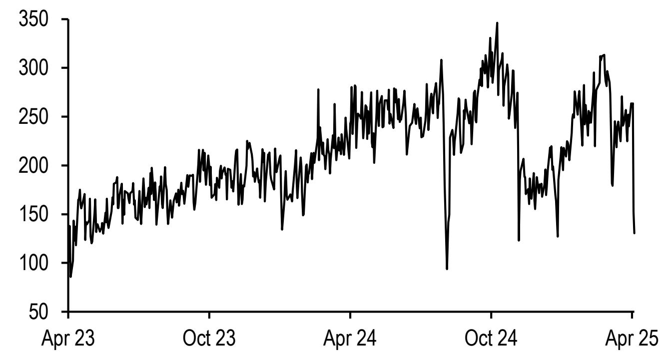
Changes in DM 1y1y OIS and 10-year government bond yields, 3/28/25-4/4/25; bp



Source: J.P. Morgan

Figure 12: ...amid a sharp weakening in liquidity conditions

Duration-weighted Treasury market depth*; $mn 10-year Treasury equivalents



* Market depth is the sum of the three bids and offers by queue position, averaged between 8:30 and 10:30am daily. We sum across 2-, 5-, 10-, and 30-year Treasuries
Source: BrokerTec, J.P. Morgan

This announcement is even more severe than our economists presented last month (see *US tariffs redux: Objectives widen, targets broaden*, Jahangir Aziz et al., 3/7/25). If sustained, this year's 20+%-pt tariff increase would be the largest US tax hike since 1968, and given the attendant risks of retaliation and sentiment shock, our global economists have raised their 2025 global recession risks from 40% to 60% (see *There will be blood*, Bruce Kasman, et al., 4/3/25). As a result, we have made major changes to our growth, inflation, and policy forecasts, to reflect this development. We now look for full year (4Q/4Q) real GDP growth of -0.3%, down from 1.3% previously, and for the unemployment rate to rise to 5.3%. Even though we have lifted our full-year core PCE inflation forecast by 1.4%-pts to 4.4%, we still expect a first Fed ease in June. However we now think the Committee cuts at every meeting through January, brining the top of the funds rate target down to 3% (see *An update to our economic outlook*, Michael Feroli, 4/4/25). Indeed, Chair Powell's comments today read more hawkishly than his comments after the March FOMC meeting: even though the FOMC is "well positioned to wait for greater clarity before considering any adjustments to our policy stance," he argued "Our obligation is to keep longer-term inflation expectations well anchored and to make certain that a one-time increase in the price level does not become an ongoing inflation problem" (see *Federal Reserve NLP Report: Jerome Powell*, 4/4/25). **Given this backdrop, we also make revisions to our interest rate forecast (Figure 13). Notably, we lower our year-end 10-year forecast from 4.15% to 3.65%, and our 2-year forecast from 3.65% to 2.70%. Additionally, as a result of a shifting risk distribution, earlier this week we recommended adding duration in 2-year Treasuries to position for lower yields (see Trade recommendations).**

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Figure 13: We lower our interest rate forecasts to reflect weaker growth and more Fed easing

J.P. Morgan interest rate forecast; %

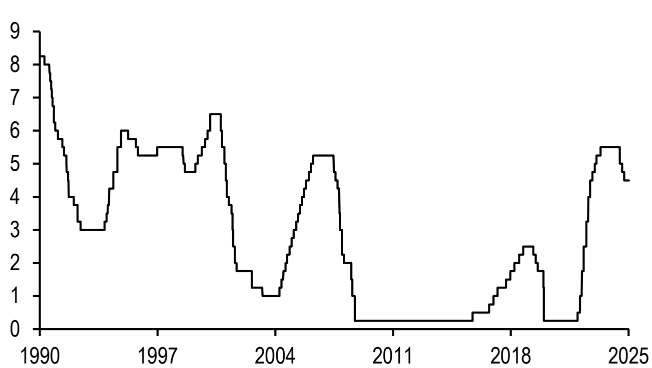
	Actual 4-Apr	1m ahead 4-May	2Q25 30-Jun	3Q25 30-Sep	4Q25 31-Dec	1Q26 31-Mar
Rates (%)						
Effective funds rate	4.33	4.33	4.10	3.60	3.10	2.85
SOFR	4.39	4.39	4.10	3.60	3.10	2.85
2-yr Treasury	3.67	3.60	3.50	3.05	2.70	2.70
3-yr Treasury	3.64	3.60	3.50	3.25	3.05	3.05
5-yr Treasury	3.71	3.70	3.65	3.30	3.05	3.05
7-yr Treasury	3.83	3.80	3.80	3.45	3.20	3.20
10-yr Treasury	3.99	4.00	3.95	3.75	3.65	3.65
20-yr Treasury	4.42	4.40	4.40	4.20	4.10	4.10
30-yr Treasury	4.39	4.40	4.35	4.20	4.15	4.15

Source: J.P. Morgan

Though we have lowered our rate forecasts to reflect weaker growth and more Fed easing, we recognize there are risks around this forecast. We consider, for example, three alternative scenarios to our baseline: 1. Growth doesn't slow, inflation stays high, and the Fed stays on hold; 2. The Fed delivers a shallow 50bp cutting cycle, and 3. A deeper US recession drives the Fed to lower rates by 250bp from current levels, instead of the 150bp of easing in our baseline forecast. We understand that in the last three non-COVID recessions over the last 30 years, the Fed eased on average by over 500bp, but we are being conservative in our assumptions for a deeper recession given the high level of delivered inflation and that the Fed has already lowered rates 100bp from its peak in 2024 (**Figure 14**). Then, we regress Treasury yields on 1y1y OIS (to reflect medium-term Fed expectations) and 5y5y inflation expectations over the last year, and find these factors alone explains 65-85% of the variation in Treasury yields over the last year, with the regression fit declining as we extend in maturity. Assuming the scenarios described above and using the partial sensitivities of yields to 1y1y OIS, from our regression analysis (while holding inflation expectations constant), we plot out the expected change in Treasury yields (**Figure 15**). We find that should the Fed deliver only shallow cuts, there is scope for yields to rise 40-80bp, whereas if a recession is realized, then there is scope for yields to decline another 50-100bp from current levels.

Figure 14: In prior recessions over the last 35 years, the Fed has cut rates by over 500bp, on average...

Top end of Fed funds target range*; %



* Fed funds target rate before December 2008
Source: J.P. Morgan

Figure 15: ...and in the case of a deeper recession, we believe yields could decline further than in our baseline forecast

Scenario analysis* on Treasury yield levels under various alternative Fed easing scenarios in 2025; %

Maturity	On hold	Shallow cuts	Deeper Recession
2y	4.80	4.40	2.70
5y	4.60	4.20	2.80
10y	4.70	4.40	3.30
30y	5.00	4.80	3.90

*We regress Treasury yields on 1y1y OIS over the last year and hold the current level of breakevens constant while shocking 1y1y OIS to 4.33%, 3.83% and 1.83%, respectively
Source: J.P. Morgan

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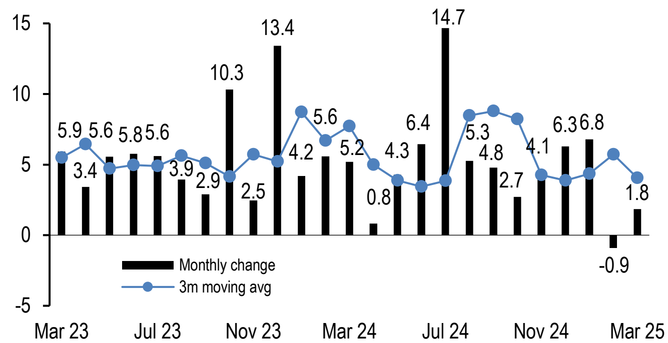
In addition to our long duration position, we continue to hold 2s/5s steepeners as well. The curve bullishly flattened this week, with the moves front-loaded prior to the Wednesday afternoon tariff announcement. Since then the curve has begun to show positive directionality, steepening as yields decline, and we see room for the curve to steepen further as the markets price in a deeper cutting cycle (see see Treasuries, *US Fixed Income Markets Weekly*, 3/28/25).

STRIPS update

Figure 16: P-STRIPS outstanding rose $1.8bn in March, below recent averages

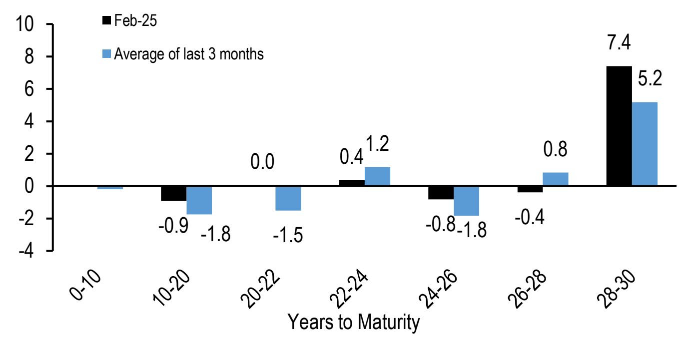
Monthly change in P-STRIPS outstanding with prior 3-month moving average; $bn



Source: US Treasury, J.P. Morgan

Figure 17: ...and demand remained concentrated at the tip of the curve

Monthly change in P-STRIPS outstanding by sector in March 2025 vs. prior 3- month average; $bn



Source: US Treasury, J.P. Morgan

This afternoon Treasury released the MSPD for March, which showed P-STRIPS outstanding rose $1.8bn over the month, more than the $0.9bn of net reconstitutions last month, but below recent averages (**Figure 16**). Stripping demand remained concentrated at the tip of the curve, similar to recent months, but this was partially offset by larger than average reconsitutions in the 10-22 and 24-26 year sectors (**Figure 17**). Indeed, **Figure 18** illustrates there was $3.3bn of stripping demand in old 30s (Nov-54s), $2.7bn in current 30s (Feb-55s), and $1.4bn in the double-old 30s (Aug-54s). Similar to February, the sell off in risk markets heading into March month-end may have reduced stripping activity last month. Over the medium term, with private DB pension funding ratios hovering above 100%, we think long duration demand should remain steady going forward.

Figure 18: The old 30s were the most stripped securities in March, followed by the current 30s and double-old 30s

Most stripped securities in March; units as indicated

CUSIP	Coupon	Maturity	Stripped last month; $bn	Total held in stripped form; $bn
912810UE6	4.5	11/15/2054	3.3	11.2
912810UG1	4.625	2/15/2055	2.7	3.0
912810UC0	4.25	8/15/2054	1.4	16.3
912810SE9	3.375	11/15/2048	1.1	11.5
912810TV0	4.75	11/15/2053	0.6	11.5

Source: US Treasury

Away from the demand for STRIPS, it's notable that Coup/P spreads have tightened aggressively in early-2025, as average spreads in the 2043-2050 sector have narrowed approximately 6bp YTD and are now trading at their tightest levels since August 2023 (**Figure 19**). In our 2025 Outlook, we argued that a Fed either on hold or slowly normalizing policy rates would be supportive of increased demand for higher-yielding less-liquid Treasury products, like Coups. We had not expected the sharp magnitude of outperformance, and we think there are two factors at work here.

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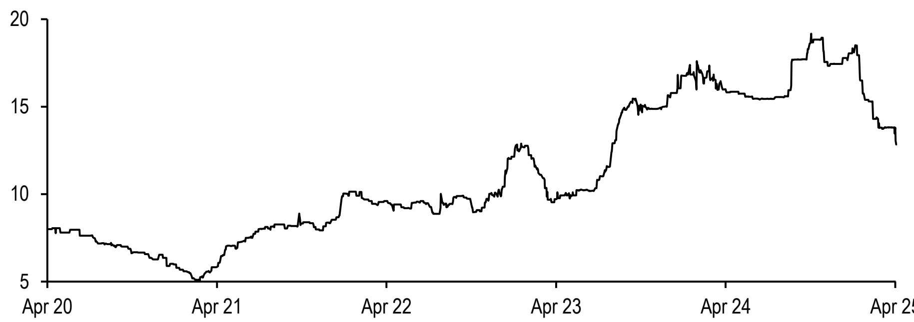
Figure 19: Coup/P spreads have narrowed substantially to kick of 2025...

Average Coup/P spread for all STRIPS in 2043-2050 sector; bp



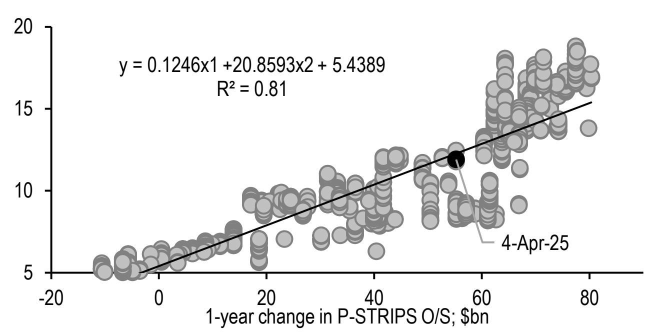
Source: J.P. Morgan

First, the pace of stripping demand which peaked at a rate of more than $75bn/year in late-2024 has since moderated to approximately $60bn/year, thus slowing the pace of Coup supply. **Second**, we think risk appetite for more balance sheet intensive, less liquid securities has intensified in the wake of Governor Bowman, Chair Powell, and Treasury Secretary Bessent's comments on bank regulatory relief, and SLR reform in particular. We continue to think the timeline for any easing of balance sheet constraints is more likely a 2026 event, but it is interesting that the RMSE to our fitted curve, which we use as a measure of dispersion of pricing in off-the-run Treasuries, has continued to decline this year, also supporting the outperformance of less liquid sectors of the Treasury market. We find that Coup/P spreads are largely driven by the change in P-STRIPS outstanding (as a proxy for Coup supply), and SOFR/Fed funds spreads (as a proxy for balance sheet frictions) are now fairly valued, after having looked cheap last fall (**Figure 20**). Given these factors, we no longer think Coups offer the same value as they did in the fall, and even if stripping demand continues to slow, the bigger near-term danger is whether reduced risk appetite amid weakening liquidity conditions will lead less liquid products like Coups to underperform.

Along the curve, most Coups in the 2043-2051 sector are trading more than 1 standard deviation rich to their trailing 1-year averages with Coups in the 2046-2047 sector standing out as particularly rich right now relative to surrounding issues (**Figure 21**). Conversely, Coups at the tip of the curve offer more value, with May-2053s standing out as cheap.

Figure 20: ...and appear fairly priced given the slowing in stripping demand and funding conditions

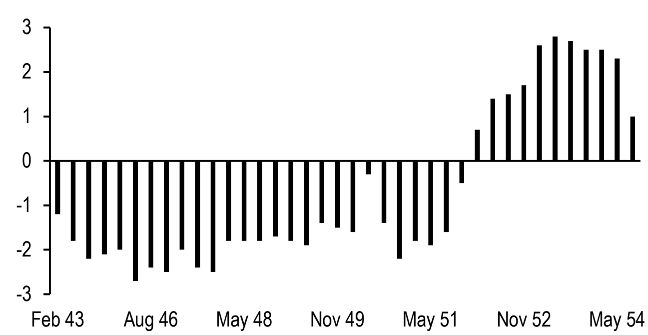
Average Coup/P spreads in the 2043-2050 sector regressed on 12-month change in P-STRIPS O/S ($bn) and SOFR/EFFR spread (1-week moving average; bp), regression over the last 3 years; bp



Source: J.P. Morgan

Figure 21: Most Coups in the 2043-2051 sector are trading rich relative to ranges over the last year with the 2046-2047 sector standing out as rich. Meanwhile, Coups at the tip of the curve offer relatively more value

Coup/P spreads in 2043-2054 sector; 1 -year z-score



Source: J.P. Morgan

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Trade recommendations

- **Stay long 2-year Treasuries**

- Stay long 100% risk, or $262mn notional of T 3.875% Mar-27s
(*US Treasury Market Daily*, 4/3/25: P/L since inception: 5.3bp)

- **Maintain 2s/5s steepeners**

- Stay short 100% risk, or $112mn notional of T 4% Feb-30s
- Stay long 100% risk, or $268mn notional of T 4.125% Feb-27s
(*US Treasury Market Daily*, 3/20/25: P/L since inception: -5.3bp)

- **Maintain 1s/2s/5s belly-richening butterflies**

- Stay short 50% risk, or $134mn notional of B 19-Mar-26s
- Stay long 100% risk, or $134.2mn notional of T 4.125% Feb-27s
- Stay short 50% risk, or $28mn notional of T 4% Feb-30s
(*US Treasury Market Daily*, 3/20/25: P/L since inception: 0.1bp)

- **Maintain 20s/30s flatteners**

- Stay short 100% risk, or $20mn notional of T 4.625% Nov-44s
- Stay long 100% risk, or $16.1mn notional of T 4.5% Nov-54s
(*US Fixed Income Markets Weekly*, 2/7/25: P/L since inception: -3.2bp)

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Figure 22: Closed trades in last 12 months
P/L reported in bp of yield unless otherwise indicated

TRADE	ENTRY	EXIT	P/L
Duration			
Equi-notional 2s/5s flatteners	05/31/24	06/06/24	16.0
5-year duration shorts	06/14/24	07/01/24	21.9
30% 2-year duration short	07/12/24	07/31/24	-1.8
2-year duration longs	11/15/24	12/02/24	7.1
2-year duration longs	12/20/24	01/27/25	11.1
2-year duration longs	02/12/25	02/14/25	10.4
2-year duration shorts	02/28/25	03/07/25	0.7
Curve			
2s/5s flatteners	12/08/23	05/17/24	6.0
5s/30s steepener	11/22/23	09/06/24	26.4
3s/5s steepener	09/04/24	09/06/24	3.1
3s/30s steepener	09/06/24	09/18/24	0.2
3s/20s steepener	09/27/24	10/04/24	-18.3
10s/30s steepeners	11/15/24	12/18/24	-1.2
5s/10s flatteners	01/10/25	02/06/25	1.4
10s/30s flatteners	02/28/25	03/07/25	-1.7
Relative value			
20s/ old 30s flatteners	02/15/24	05/10/24	-2.6
100:97 weighted 3.75% Apr-26/ 4.625% Sep-26 flatteners	04/12/24	05/17/24	2.2
100:95 weighted 4% Feb-28 / 4% Feb-30 steepeners	02/23/24	05/31/24	-6.6
50:50 weighted 3s/5s/7s belly-richening buterflies	03/15/24	06/14/24	2.1
100:98 weighted 4.75% Feb 37s / 4.5% Aug 39s steepeners	06/14/24	07/12/24	2.6
100:95 weighted 0.625% Jul-26s / 1.25% Dec-26s steepeners	07/12/24	08/14/24	1.5
2.375% May-51s / 4.25% Feb-54s steepener	11/15/24	01/06/25	1.6
Term premium			
75:6 weighted 5s/10s/30s belly-cheapening butterfly	09/29/23	11/06/24	8.5
64:11 weighted 3s/10s/30s belly-cheapening butterfly	11/26/24	12/20/24	8.3
64:11 weighted 3s/10s/30s belly-cheapening butterfly	02/25/25	03/28/25	5.9
Number of positive trades			19
Number of negative trades			6
Hit rate			76%
Aggregate P/L			104.8

Source: J.P. Morgan

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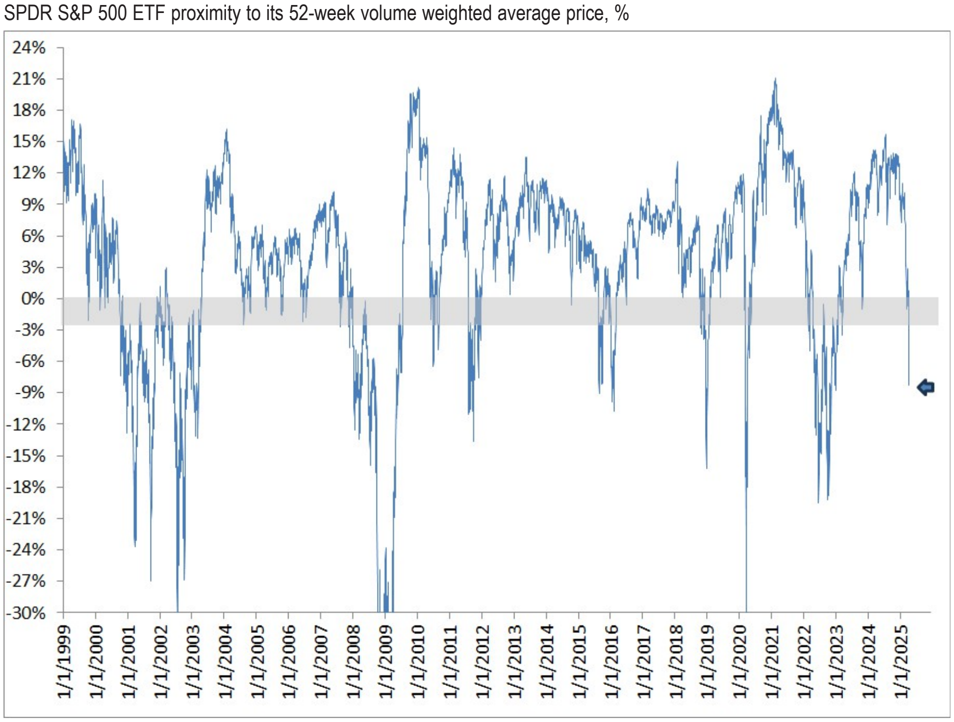
Technical Analysis

- The US trade policy announcement pushed US markets through the key bifurcation zones we have been focused on in recent weeks, which in our view marked the levels that if breached would see market trends accelerate and start to dramatically increase the pricing around recession risk...
- ...For the S&P 500 Index, the decline quickly gapped from key support near 5500 to the next levels in the mid-5300s, and finally to a large confluence of potential support in the low-5100s. We suspect the market can stage a bear market rebound from that support over the near-term, but believe that lift will be contained and potentially short-lived unless the news flow sees a dramatic change...
- ...The 2-year note tested key pattern resistance at 3.48-3.55% before the rally faded intraday. We see 3.825-3.85% as a new yield ceiling and expect an eventual bullish breakout in the weeks ahead.
- Technical Trade Strategies: -10-year TIPS breakevens: Take profit on ½ of 50% tighten-er from 238bp entry at MKT. Re-enter that risk near 225bp if available. Stop the entire trade above 230bp. Target near 200bp.

Figure 23: This week's tariff announcement pushed the S&P 500 through the key 5500 and a technical bifurcation that historically has marked a transition to a more protracted bear market...

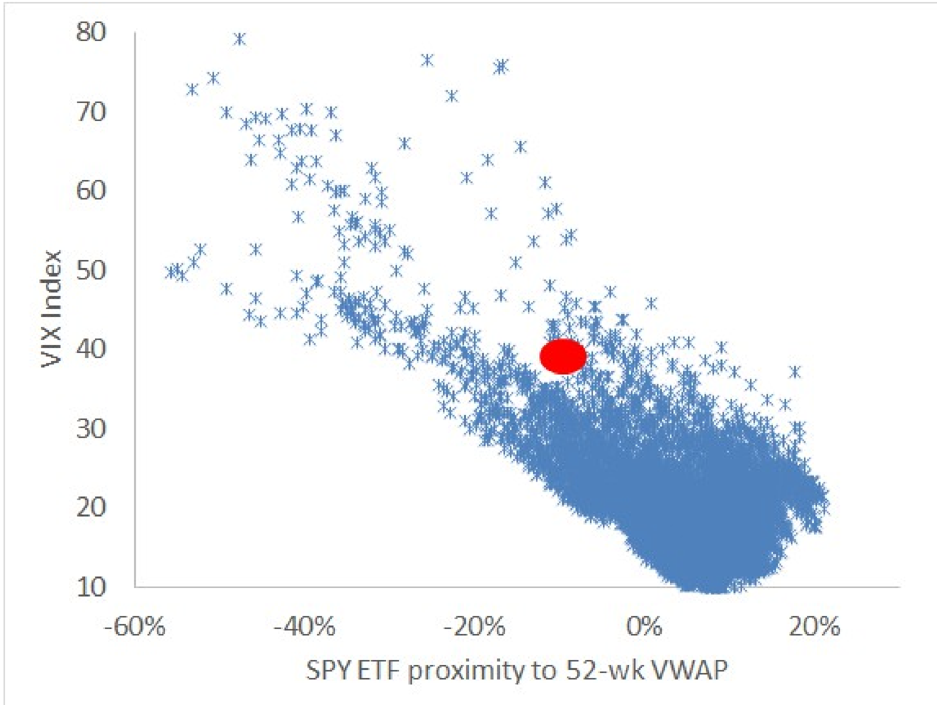
SPDR S&P 500 ETF proximity to its 52-week volume weighted average price, %



Source: J.P. Morgan. Bloomberg Finance L.P.

Figure 24: ...Past experience leaves us looking for continued high volatility and price action that presents frequent trade opportunities via intermittent, short-lived, and sharp oversold rebounds.

VIX Index regressed against SPY ETF proximity to its 52-week VWAP



Source: J.P. Morgan. Bloomberg Finance L.P.

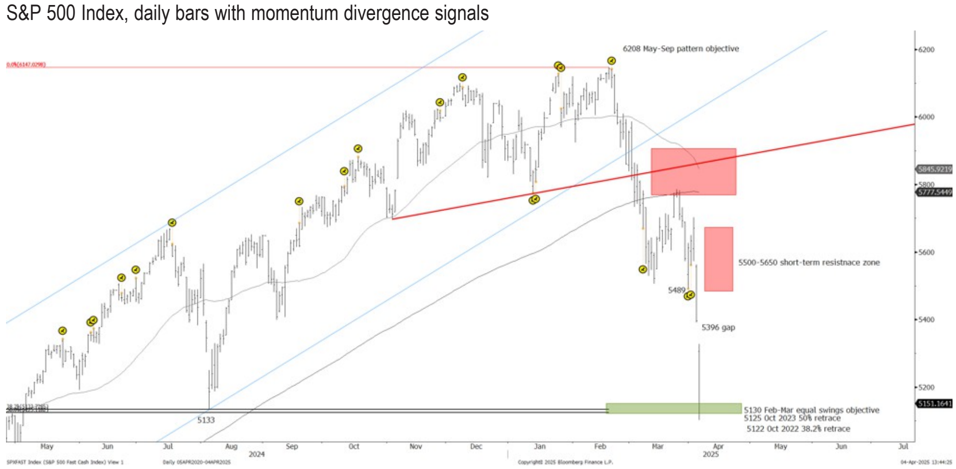
US

This week's more aggressive than expected US trade policy announcement pushed markets through the key bifurcation zones we've highlighted in our recent technical research notes. Through those levels, we thought price trends could accelerate as investors started to price in a higher probability US recession. Anyone who has spent enough time watching markets where they've witnessed such a transition knows the curvilinear nature of the price trends as they cross that threshold. We've used the "fork in the road" metaphor quite a bit in our recent notes. Given what often feels like a bend in space-time once markets start to contemplate a nonlinear break in the economic data, we've switched metaphors for this week's title— Through the event horizon. The 5500-5600 area marked that inflection for the S&P 500 Index, which most importantly included the SPY ETF 52-week volume weighted average price. Historically, breaks below that area have often led to sharp increases in market volatility, and the area surrounding that weighted average have thereafter acted as key resistance for subsequent bounces (Figure 1 and Figure 2). The market has now fallen to near 10% through that threshold and the VIX has lifted toward 40.

Additionally, we've highlighted that the OIS-implied terminal easing rate was pressing into the 50-55bp zone through market-implied neutral. Historically, the market has only really accelerated to a more dovish policy expectation when jobless claims were trending higher, which in turn pointed to an increased risk for recession. That dynamic rates curve extended to 65bp through neutral as of Thursday's close.

Figure 25: The 10% two-day S&P 500 Index collapse from one key support layer to another leaves the market testing a large confluence of levels near 5100. We suspect the market can be oversold enough to generate some upside mean reversion, but expect such a move to fade near 5400 if it develops...

S&P 500 Index, daily bars with momentum divergence signals



Source: J.P. Morgan. Bloomberg Finance L.P.

Equities: Where to from here?

Even if the equity market has fallen into a recession-driven bear market, which seems like a reasonable mode of operation unless we see a sharp shift in the news flow, past bear markets didn't often materialize in straight lines. The sharp sawtooth pattern often created great trading environments given the tendency for those markets to realize deep oversold conditions, excessive episodes of extreme bearish sentiment, and the short-lived but sharp and sizable mean reversions that tend to follow those conditions. Once the S&P 500 Index broke the 5500 area, we were focused on two key support layers. The first was near 5350, and the second in the 5125-5135 area. The market effectively collapsed from one of those key zones to the other since the Wednesday afternoon announcement, with Friday's price action bearishly pressuring the 5133 Aug 2024 low, 5130 Feb-Mar equal swings objective, 5125 Oct 2023 50% retrace, and 5122 Mar 2022 38.2% retrace (Figure 25). Through Thursday's close, we have not seen the deep oversold conditions or extreme bearish sentiment readings that would make us think the market had at least temporarily exhausted the selling pressure. Now near 5100, we suspect that may be the case, but need to see the after-close data to confirm our suspicion. The Daily Sentiment Index for the S&P 500 futures market had fallen to 22% bulls from 47% bulls in the short 24-hours after the tariff announcement. We suspect that the subsequent 5% free-fall could drop that reading toward the single-digit readings that would point to potential seller exhaustion (source: Network Press, Inc. www.trade-futures.com). Once that condition is in place, we would next look to the price action for either bear trend deceleration and tactical base building on the intraday charts or a quintessential one-day reversal pattern where markets open very weak and stage a sharp intraday reversal to close at higher levels. Until then, we would not fade the weakness other than to book speculative short trades (see partial cover of our 10-year breakevens tightener, which was meant as a risky market hedge).

Longer-term support levels for the index begin at the 4818 Jan 2022 peak and 4811 Mar 2020 50% retrace, and extend lower to the 4624 Mar 2020 38.2% retrace, 4606 4Q23 breakout, and 4500 Oct 2022 61.8% retrace. A drop into that zone would mark a decline of 21%-26% from the 6147 Feb 2025 peak, in line with the more benign to moderate recession-driven bear markets historically (Figure 26).

Figure 26: ...Until we see clear evidence of a technical bottom, we think the index remains vulnerable to further weakness over the medium-term. Key longer-term support spans from 4500-4800. A peak-to-trough decline to that area would align with the more benign to moderate recession-driven bear markets in the index's history

S&P 500 Index, weekly bars with momentum divergence signals (Log scale)

Source: J.P. Morgan. Bloomberg Finance L.P.

This report was excerpted from *Global Fixed Income Technical Update,* Jason Hunter, April 04, 2025

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TIPS Strategy

Living on the edge

- TIPS underperformed sharply, alongside a broad flight-to-quality move, as growth concerns overshadowed the near-term inflationary impact of tariffs. The underperformance was exacerbated by comments from Chair Powell, which excluded the word “transitory” and included the word “persistent” in describing the potential inflation impact from tariffs
- Given this week’s tariff announcement, our economists now expect the US economy will fall into recession this year, exerting a significant disinflationary force over the medium-term. We revise lower our breakeven targets and now project 10-year breakevens ending the year at 215bp, versus 225bp previously
- We forecast a 0.24% m/m increase in core CPI as well as a 0.09% increase in the headline, bringing the CPI-U NSA index to 320.263, above both Bloomberg consensus and the market fixing, though we think it will require a more material upside surprise to meaningfully lift forward inflation expectations. Meanwhile, tariff news will likely remain front and center for markets
- We took profits on energy-hedged 2-year inflation swap longs on Thursday and are hesitant to hold outright long exposure on the inflation curve. We maintain longs in 5Yx5Y inflation swaps hedged with a beta-weighted long in nominal swaps

Market views

President Trump’s Liberation Day announcement surprised in both breadth and magnitude, bringing the average tariff rate for the US to around 24%, up from a starting point 2.3% at the end of last year. This drove a significant flight-to-quality move across markets, and the bull flattening of the inflation curve observed leading up to the announcement began to shift by the end of the week, with 5-, 10-, and 30-year breakevens ending 23bp, 19bp, and 14bp narrower, net of carry. Along the curve, 1Y inflation swaps surged in the immediate aftermath of the announcement, before subsequently retreating from their highs, while forward inflation expectations dropped to their lowest levels in more than two years (**Figure 27**).1Yx1Y inflation swaps fell a staggering 38bp, the largest one-week decline since the collapse of SVB in 2023. Front-end real yields continued lower through Friday morning before reversing in the aftermath of Chair Powell’s comments that suggested the Fed is likely to remain on hold for now and included a more ambiguous description of tariff-driven inflation. He reiterated that his baseline expectation is that tariff-driven inflation will be temporary (N.B. the word “transitory” was not used), while acknowledging “it is also possible that the effects could be more persistent.” Real yields ended close to unchanged across the curve.

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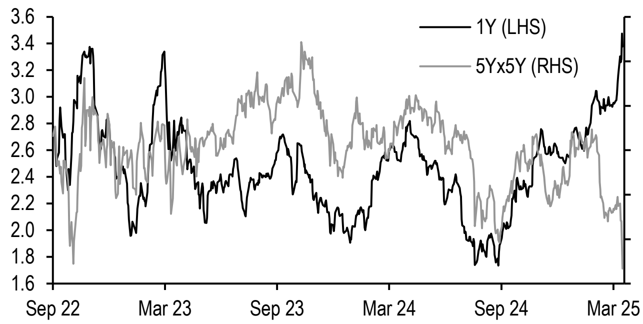
Figure 27: 1Y inflation swaps surged in the immediate aftermath of the announcement, while forward inflation expectations fell to multi-year lows

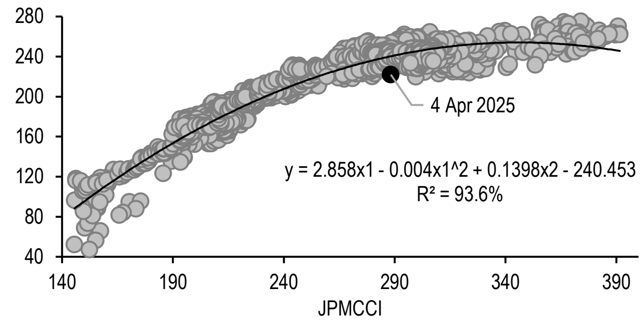
1Y (LHS) vs. 5Yx5Y (RHS) inflation swap rates; % both axes



Source: J.P. Morgan

Figure 28: TIPS underperformed sharply on a cross-market basis as risk assets collapsed

J.P. Morgan 10-year fair value framework*; bp



* 1m-forward, seasonally-adjusted breakevens are regressed on the J.P. Morgan Commodity Curve Index (JPMCCI) as well as its square and the 3mx3m/15mx3m OIS curve; regression over the last 7 years; R2=93.6%, SE=9.5bp.
Source: J.P. Morgan

If sustained, this hike in the tariff rate would be the largest tax increase on US households and businesses since the Revenue Act of 1968, and its effect on the US economy is likely to be magnified by retaliation, a slide in US business sentiment, and supply chain disruptions. Thus, the announcement has brought forth a significant reassessment of our economic outlook, and we now view a recession as the most likely outcome (see *There will be blood*, Bruce Kasman, 4/3/25). Alongside a weaker growth outlook, it's not surprising that markets have priced in nearly a full additional cut over the next year, and commodity prices have fallen 6%, led by a larger 10% drop in oil prices. Despite these moves, the narrowing in breakevens outpaced the cheapening in model-implied levels from our fair value framework, particularly in the intermediate sector of the curve, where 10-year breakevens now appear 15bp too narrow on a cross-market basis (**Figure 28**). This mispricing is the largest we have observed on this basis since the fall of 2022 and looks even more pronounced on a forward basis.

However, as we look ahead, we took profits on energy-hedged 2-year inflation swap longs on Thursday and are hesitant to hold outright long exposure on the inflation curve. Though a significant increase in tariff rates should bring with it an increase in price levels, the negative demand shock associated with this development is also material when considering the outlook for CPI inflation, in at least two respects. First, as evident in the collapse in US equity markets over recent sessions, this environment suggests it will be more difficult for companies to pass on tariff costs to the consumer, suggesting a more material compression in profit margins. Second, even if we see upward pressure on goods prices over coming months, other parts of the basket are likely to see prices fall alongside weakening demand.

From the perspective of our fair value framework, a deterioration in activity data as recession dynamics take hold around the middle of the year is likely to justify a more inverted money market curve and weigh on breakevens. Our economists now forecast six 25bp cuts beginning in June, up from two previously, bringing the top of the target range down to 3% (see *An update on our economic outlook*, Michael Feroli, 4/4/25). Additionally, while our commodity strategists have not made any revisions to their price targets following this week's developments, they argue that the trajectory for oil prices is unmistakably one way. The Trump administration has indicated a strong preference for reducing crude prices, and weak oil supply-demand fundamentals could help achieve this goal even without any action

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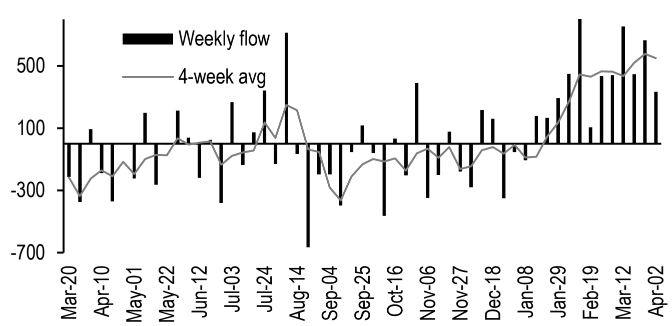
from the administration (see *Oil Markets Weekly: A user's guide to $50 oil...or below*, Natasha Kaneva, 4/4/25). Lower oil prices should help offset some of the inflationary impact from higher tariffs and directly impact the near-term inflation trajectory. Additionally, we have shown empirically that even forward inflation expectations have tended to covary positively with commodity prices (see *TIPS Strategy*, 10/4/24). Lastly, the discount already embedded in forward inflation breakevens following this week's moves, alongside what we expect will be continued demand for inflation protection given perceived stagflation risks (**Figure 29**), prevents us from making more material downward revisions.

Putting the pieces together, we revise down our breakeven targets over coming quarters, and we now see 10-year breakevens ending the year at 215bp, from 225bp previously (**Figure 30**). We expect the breakeven curve can remain inverted through the third quarter, as the peak tariff impact is observed in inflation data, before steepening into the end of the year as sequential inflation slows and the Fed eases policy rates more aggressively. Combined with revisions to our nominal yield targets, we now see 5- and 10-year real yields declining to 0.95% and 1.50%, respectively, by year end, versus 1.55% and 1.90%, previously.

Risks to this forecast remain two-sided, especially as the near-term direction of trade policy remains uncertain. Following the latest round of tariff increases,the effective tariff rate could move higher still — for example, if sectoral tariffs on pharma, chips, lumber, and copper are announced as planned or if further retaliation from our trading partners exacerbates trade tensions further. However, over the last couple of days, President Trump indicated he would be open to negotiating tariffs "so long as they're giving us something that's good." Commerce Secretary Lutnick also suggested there is room for negotiation, and Treasury Secretary Bessent reiterated that the tariffs announced Wednesday "will be a ceiling, not a floor." In the event that tariffs are walked back, 1Y inflation swap rates are likely to move lower while the rest of the curve outperforms.

Figure 29: ETF inflows continued at a steady clip

Weekly flow into TIPS-focused ETFs; $mn



Source: EPFR, J.P. Morgan

Figure 30: We revise our breakeven targets lower to reflect a weaker growth trajectory over the balance of the year

Spot breakevens and real yields, breakeven targets, and real yield levels based on those targets; units as indicated

	Actual 4-Apr-25	2Q25 30-Jun-25	3Q25 30-Sep-25	4Q25 31-Dec-25	1Q26 31-Mar-26
Breakevens (bp)					
5Y	239	225	215	210	215
10Y	218	215	210	215	220
30Y	212	215	210	215	220
Real yields (%)					
5Y	1.31	1.40	1.15	0.95	0.90
10Y	1.81	1.80	1.65	1.50	1.45
30Y	2.27	2.20	2.10	2.00	1.95

* Targets for real yields are based on our nominal yield forecasts and breakeven targets
Source: J.P. Morgan

Looking ahead to next week, the March CPI will be released. Of course this data is backward looking, and it is probably too early for any material tariff impact to be evident in the details, though the report will give us some indication of how the inflation landscape was evolving before the April tariffs took effect. We forecast a 0.24% m/m increase in core CPI as well as a 0.09% increase in the headline, bringing the CPI-U NSA index to 320.263, above both Bloomberg consensus (320.151) and the market fixing (319.96) (see *US Weekly Prospects*,

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Michael Feroli, 4/4/25). As **Figure 31** shows, we estimate the market fixing implies a softer 0.15% increase in core CPI, based on our estimates for food and energy. If our forecast is correct, we could see breakevens widen mechanically based on the carry implications, although it would likely take a material upside surprise to push forward inflation expectations higher.

Along the curve, last week we added longs in 5Yx5Y inflation swaps paired with a beta-weighted long in nominal swaps, arguing that the structure offered asymmetric upside given the sector's underperformance and a Fed that was likely to view tariff-driven inflation as transitory, with a preference to ease. However, goldilocks labor market data on Friday, paired with more measured comments from Powell, and a sharp risk off move across markets drove further underperformance in inflation markets. Though the weakness was most pronounced at the front end, with the 2Yx3Y/5Yx5Y steepening significantly as expected, the discount in the 5Yx5Y sector extended to 10bp (**Figure 32**). We continue to see the most value in longer-run inflation forwards, given that they should be less exposed to near-term recession risks, while structural changes in supply chains as a result of the administration's tariff action will result in higher inflation over the longer run. Moreover, we think the market overreacted to Powell's comments on Friday, and expect guidance will shift dovishly in coming weeks and months, with the Fed likely to be in a position to ease before the end of the quarter. Thus, **we maintain this trade.**

Figure 31: We estimate the market fixing implies a 0.15% m/m increase in core CPI, below our forecast for a 0.24% gain

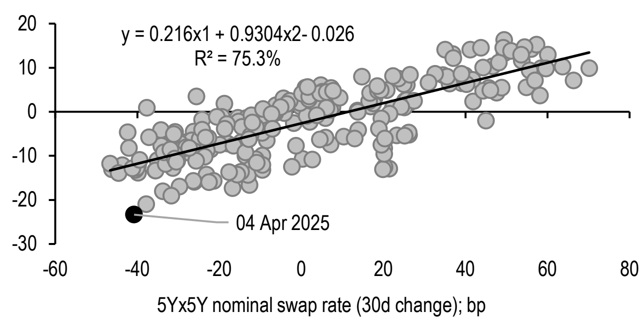
CPI fixings and implied inflation rates; units as indicated

Month	Fixing	Implied headline % m/m sa	Implied headline % oya	Implied core % m/m sa	Implied core % oya
Mar-25	319.96	-0.01%	2.44%	0.15%	2.91%
Apr-25	321.42	0.36%	2.51%	0.45%	3.09%
May-25	322.92	0.34%	2.82%	0.57%	3.53%
Jun-25	324.46	0.44%	3.27%	0.60%	4.06%
Jul-25	325.17	0.24%	3.38%	0.34%	4.22%
Aug-25	325.88	0.32%	3.52%	0.26%	4.19%
Sep-25	326.66	0.31%	3.60%	0.27%	4.15%
Oct-25	326.98	0.21%	3.58%	0.30%	4.18%
Nov-25	326.78	0.27%	3.58%	0.32%	4.21%
Dec-25	326.92	0.37%	3.59%	0.26%	4.26%

Source: J.P. Morgan

Figure 32: 5Yx5Y inflation swaps appear cheap after controlling for nominal yields and broad commodity prices

5Yx5Y inflation swap rate regressed on in 5Yx5Y nominal swap rate and log JPMCCI, using 30d changes in all variables; regression over the past year; bp



Source: J.P. Morgan

Trade recommendations

- **Maintain 5Yx5Y inflation swap long paired with a 22% receive fixed nominal swap**

- Initiate long 100% risk, or $55mn notional of 5Yx5Y inflation swap at 2.431% (swap start: 4/1/30,swap end: 4/1/35).
- Received fixed in 22% risk, or $14.4mn notional of 5Yx5Y SOFR swap at a yield of 3.955%.(See *TIPS Strategy*, 3/28/25). P/L since inception: -8.4bp

- **Took profits on 2-year inflation swap longs paired with a short energy hedge**

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- Unwound long 100% risk, or $79mn notional of 2Y inflation swap (swap start: 3/11/25,swap end: 3/11/27).
- Unwound short 19 Brent futures (CON5).
(See *TIPS Strategy*, 3/7/25). P/L since inception: +32.2bp.

Figure 33: Trade performance over the past 12 months

P/L reported in bp of yield unless otherwise indicated

TRADE	ENTRY	EXIT	P/L
Hedged 2Y inflation swap longs	3/7/2025	4/3/2025	32.2
1Yx1Y/5Yx5Y CPI curve flatteners	2/21/2025	2/28/2025	12.4
4Yx1Y breakeven wideners	2/7/2025	2/20/2025	1.9
5Yx5Y inflation swap shorts	1/24/2025	2/6/2025	3.4
10Yx20Y inflation swap longs	11/15/2024	1/10/2025	4.5
Hedged 5Y breakeven wideners	10/17/2024	12/18/2024	-16.5
2Yx3Y inflation swap longs	10/4/2024	10/9/2024	8.8
Hedged 5s/10s BE curve steepener	9/13/2024	10/4/2024	-3.3
5Yx5Y inflation swap longs	8/16/2024	8/28/2024	4.5
1Yx1Y inflation swap longs	6/14/2024	7/10/2024	17.5
Jul 24/Jul 25 BE wideners	5/10/2024	5/28/2024	11.7
10Yx20Y breakeven wideners	4/12/2024	4/26/2024	4.7
Long 5Y TIPS	3/20/2024	4/25/2024	-31
6mx1Y breakeven wideners	4/5/2024	4/19/2024	7.3
Old 10s/30s breakeven curve steepeners	2/23/2024	4/12/2024	-5.6
AGGREGATE:			
Number of trades	15		
Number of winners	11		
Hit ratio	73%		
Aggregate P/L (bp of yield)	52.5		

Source: J.P. Morgan

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Interest Rate Derivatives

"Forward", the General cried from the rear, and the front rank died

- The announcement of unexpectedly large tariffs has sent markets into full risk-off mode. Equities are sharply lower, credit spreads are wider, swaption implied volatility is higher, and rates are sharply lower. Our economists now expect 6 cuts over the remainder of the year, and implied probability distributions are pointing to a consolidation of expectations around deep cuts. But Fed Chair Powell spoke on Friday, and reiterated the Fed's willingness to be patient, and ensuring that inflation is not persistently high before easing further
- Thus, investors' approach to yield curve positioning must account for this uncertainty around the policy path. Our approach to addressing this is to examine three different policy scenarios at a 6M forward horizon - one where the Fed under-delivers on rate cuts, one where the forwards in the Fronts and Reds are realized, and one where it over delivers relative to these forwards. We then project yield curve changes in these scenarios and compare them to the steepening that is already priced into 6M forward curves. This suggests that spot curve steepeners such as 2s/10s now carry 2-sided risk, and are only attractive if predicated upon an expectation of much more aggressive easing. However, 1-year forward swap curve steepeners anchored in the front end offer more asymmetrically positive exposure to Fed easing - initiate exposure to a steeper 18M forward 2s/10s curve
- We also recommend positioning conditionally for a reversal of recent moves in rates, should that occur on the back of some moderation in tariffs - initiate exposure to a flatter 7s/30s curve in a selloff using 6M expiry payer swaptions, financed by selling 15% of the risk in 6Mx3Y payer swaptions
- Stay bullish on swaption volatility - the history of sudden-onset risk-off episodes suggests that the ongoing rise in implied volatility likely has more room to go, and any retracement is likely to be slow rather than swift
- The abrupt shift to a risk-off tone in markets brings demand-side positives that ought to be supportive of wider swap spreads. Bond fund inflows and bank demand for duration will likely be biased higher, and yields are headed lower, all of which are supportive of lower term funding premium, wider swap spreads and a steeper spread curve. But there is one powerful offset - historical experience in episodes such as this suggests that corporates are likely to draw upon credit lines to build their own liquidity to guard against a potential freeze-up of credit markets. This in turn means bank balance sheets could experience sharp and unexpected growth, forcing actions to curtail balance sheet elsewhere. We view this risk as significant enough to dominate other considerations in the short term, until more clarity emerges, and we are therefore biased towards narrower swap spreads

"Forward", the General cried from the rear, and the front rank died

However noble the cause, the costs of war are disproportionately inflicted upon those in the front lines, as is succinctly captured in a line from the song "Us and Them" by the great band Pink Floyd. Trade wars are similar in this respect, but the front lines are much larger and encompass a significant fraction of the overall economy. As a result, the costs of the much-larger-than-expected tariffs announced by President Trump are expected to permeate

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through the entire economy. Our economists have raised the estimated odds of a global recession to 60% (see There will be blood, B. Kasman et al., 4/3/2025), and this sudden shock is rapidly being priced into financial markets (**Figure 1**). As of this writing, the S&P500 index is down ~16% from its highs barely six weeks ago (with half of that decline coming after "Liberation Day"), 2- and 10-year UST yields are down by ~25bp over the week, implied volatility in the swaptions market is sharply higher led by the upper left, high yield and high grade credit spreads are 140bp and 25bp wider in the past six weeks or so. In other words, markets appear to be shifting from reflecting a Goldilocks expansion to a recession, in rather abrupt fashion.

Figure 1: The sudden shock coming from the much-larger-than-expected tariff announcement is rapidly being priced into financial markets

Current, previous (dates indicated), and weekly changes, as well as YTD statistics for various metrics surrounding UST yields, market liquidity*, risk appetite, funding pressures, volatility, and currency; units as indicated

				YTD Statistics			
	3/28/2025	4/4/2025	Weekly Chg	Min	Median	Mean	Max
UST yields (%)							
2-year UST yields	3.91	3.67	-0.24	3.67	4.19	4.13	4.40
5-year UST yields	3.98	3.71	-0.27	3.71	4.27	4.22	4.62
10-year UST yields	4.25	3.99	-0.27	3.99	4.44	4.43	4.80
30-year UST yields	4.63	4.39	-0.24	4.39	4.69	4.70	4.99
Liquidity							
Duration weighted market depth*	236	208	-28	183	245	244	303
Risk appetite							
SPX	5581	5074	-507	5074	5928	5867	6144
KBW Bank Index	121	104	-17	104	131	130	141
Juli / Treasury spread (bp)	109	125	16	91	96	99	125
High Yield (bp)**	379	424	44	289	309	325	424
Crude Oil	69	62	-7	62	71	70	76
Funding (bp)							
3M EUR xccy basis	0.1	-3.0	-3.1	-6.8	-1.6	-1.8	2.1
3M GBR xccy basis	2.5	0.1	-2.4	0.1	2.0	2.0	3.5
3M JPY xccy basis	-26.2	-28.6	-2.4	-32.1	-27.6	-27.7	-24.9
Vol (bp/day)							
3Mx2Y	6.82	8.21	1.39	5.27	6.31	6.26	8.21
6Mx10Y	6.26	6.74	0.48	5.85	6.23	6.23	6.74
3Yx10Y	6.07	6.19	0.11	5.89	6.12	6.13	6.36
Currency							
Trade weighted dollar index	113.7	113.5	-0.2	112.5	114.7	114.5	116.6

* Market depth is the size of the top 3 bids and offers by queue position, averaged between 8:30 - 10:30am daily. Duration weighted market depth refers to the weighted sum of market depth in 2s, 5s, 10s, and 30s using weights of 0.25, 0.5, 1 and 2, respectively
** Data for HY index reflects 4/3 COB levels
Source: J.P. Morgan., Bloomberg Finance L.P., BrokerTec

This shift is also mirrored in an abrupt change in Fed expectations. In **Figure 2**, we repeat an exercise we have often done, wherein we take the probability density function implied by the prices of calls and puts (at various strikes) on Z5 3M SOFR futures, and decompose it into a weighted combination of pre-specified Gaussian distributions centered around each possible policy rate outcome. Doing so allows us to develop a better intuitive sense of not just the average of the distribution, but how concentrated or dispersed those expectations are. As can be seen from this figure, Fed expectations have become sharply concentrated in what one could call "deep-cut" scenarios, as opposed to the relatively widely dispersed expectations that characterized the market barely six weeks ago. But the tone of Fed Chair Powell's speech on Friday suggests that such expectations are likely premature and the Fed will likely remain patient and watchful of inflation risks before cutting rates further.

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What does all this mean for the curve? One way to approach this is to recognize that (i) the inflationary pressure from tariffs is more front loaded and easier to anticipate, meaning that inflation expectations should remain stable near newly repriced levels, but (ii) the reaction function of the Fed in a stagflationary environment remains unpredictable and susceptible to greater uncertainty. One way to consider the outlook for the yield curve in such an environment is to (i) assume that inflation swap forwards will be realized, but (ii) consider various scenarios for Fed expectations, and then use our empirical fair value model for swap yield curves (which incorporates all these factors) to project yield curve changes in various sectors. We do this in **Figure 3**. From this exhibit, we can draw several insights related to curve positioning. **First**, spot curve steepeners have two-sided risk - they are only likely to payoff if the Fed significantly over-delivers on rate cuts relative to what is priced into the Fronts and the Reds. For example, the 2s/10s swap curve is currently priced to about 23bp of steepening over the next six months. If the Fed under-delivers on rate cuts (a scenario which we assume will be characterized by an unchanged 3Mx3M / 15Mx3M swap curve), this 2s/10s curve steepener has (we estimate) about 12bp of downside. In contrast, if the Fed overdelivers on rate cuts (which we assume will be characterized by a 3Mx3M rate of 3% and a 3Mx3M / 15Mx3M curve of 0bp), then this curve has about 17bp of upside. In other words, **the risk-reward in spot curve steepeners appears less compelling, given how much is already priced in, unless it is predicated upon a much higher likelihood of aggressive Fed easing**. **The risk-reward in 1Y forward curve steepeners is, however, more compelling**. As can also be seen in the same exhibit, we project that 1Y forward swap curves anchored in 2s are likely to finish steeper than what is currently priced into 6M forward versions of these curves, in all three of these scenarios. Therefore, **we recommend that investors interested in positioning for a steeper curve do so in 1-year forward swap curves anchored in 2s** (see Trade recommendations).

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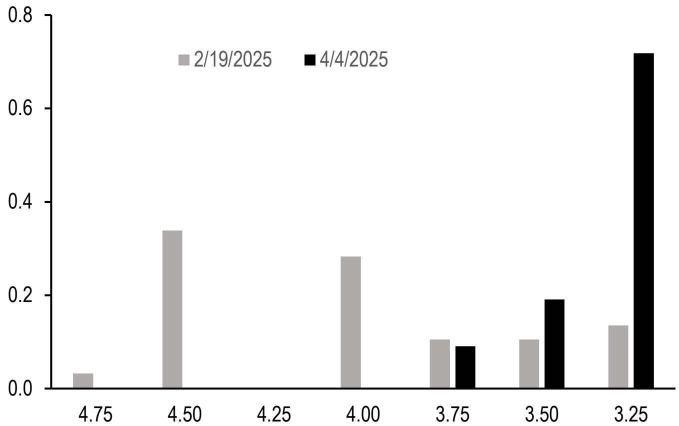
Figure 2: Fed expectations has shifted abruptly following the tariff announcements

Weights on year-end 2025 policy rate scenarios representing a range of different Fed Fund outcomes, as calculated from a decomposition of the implied probability distribution associated with Dec 2025 SOFR futures*; 2/19/2025 and 4/4/2025



* We enumerate a list of scenario-specific Normal distributions with fixed standard deviations and means that are separated by 25bp, and then require the implied distribution to be a weighted combination of these individual distributions. The weights are then solved for, by fitting to the observed prices of calls and puts at various different strikes. For more details of our approach, see What's the rush?
Source: J.P. Morgan., CME

Figure 3: Using our curve fair value model, we can examine the expected 6M ahead changes for various spot and forward curves under three different scenarios for both short rates and the Fronts/Reds curve, and compare those values against the market expected change for those curves implied by the forwards

Swap yield curve values, 6M-ahead expected changes implied from our fair value model* for three different scenarios**, and the 6M-ahead market expected change for each curve***, data and projections as of 4/3/2025; %

Curve Name	Curve Value	6M Ahead Fair Value Model Implied Change (No Residual Convergence)			Current mkt expected change implied in fwds
		Scenario 1 - Fed under-delivers on fwds	Scenario 2 - Fed over-delivers on forwards	Scenario 3 - Front loaded deeper cuts	
2s/5s	-0.11	0.06	0.22	0.31	0.18
2s/10s	0.04	0.11	0.28	0.40	0.23
2s/30s	0.11	0.12	0.29	0.41	0.23
5s/10s	0.15	0.05	0.07	0.09	0.05
5s/30s	0.22	0.06	0.07	0.10	0.05
10s/30s	0.08	0.02	0.00	0.01	0.00
1Y fwd 2s/5s	0.14	0.06	0.05	0.06	0.02
1Y fwd 2s/10s	0.35	0.09	0.04	0.05	0.02
1Y fwd 2s/30s	0.40	0.10	0.01	0.01	-0.02
1Y fwd 5s/10s	0.21	0.03	0.00	-0.01	0.00
1Y fwd 5s/30s	0.26	0.04	-0.03	-0.04	-0.04
1Y fwd 10s/30s	0.05	0.01	-0.03	-0.04	-0.04

* Fair value is calculated using coefficients from Figure 3 in Signal and Noise. 6M ahead fair value projection used in the calculation of changes assumes no residual convergence.
** All scenarios assume forwards are realized for 2Y inflation and 5Yx5Y inflation swap rates, and that the Fed balance sheet declines to ~$6.7 Tn (from our forecast). Scenario 1 assumes spot 3Mx3M yields and 3Mx3M/15Mx3M curve remain the same, Scenario 2 assumes forwards are realized for 3Mx3M yields and the 3Mx3M/15Mx3M curve, and Scenario 3 assumes short rates decline to 3% with the Fronts/Reds curve at 0bp to represent a deeper cutting scenario.
*** As an example, the 6M-ahead market expected change for the 2Y forward 2s/10s curve would be the difference between the 2Y6M forward 2s/10s curve and the 2Y 2s/10s curve values
Source: J.P. Morgan.

We also favor conditionally positioning for a retracement of recent moves. It still remains possible that negotiated reductions of tariffs will occur down the road, although it is far from clear how likely such an outcome might be. Nevertheless, the options markets allow for premium neutral conditional trades in a selloff that allow an investor to position for such a scenario. For instance, **given current swaption implied volatility levels in 6-month expiries, an investor can initiate conditional bear flattening exposure in the 7s/30s sector, financed by selling ~15% of the risk in 6Mx3Y payers, at zero net premium**. But the weight yield spread corresponding to this trade (i.e., 6Mx30Y minus 6Mx7Y plus 0.15*6Mx3Y forward swap yield spread) remains negatively correlated with yields in the belly. Thus, should a benign outcome on tariffs somehow emerge, yields will likely reprice higher and this weighted yield spread would likely flatten. Given the zero net premium on the package, we see this as an attractive and asymmetric way to position for a reversal of recent moves. Therefore, **we recommend this trade** (see Trade recommendations).

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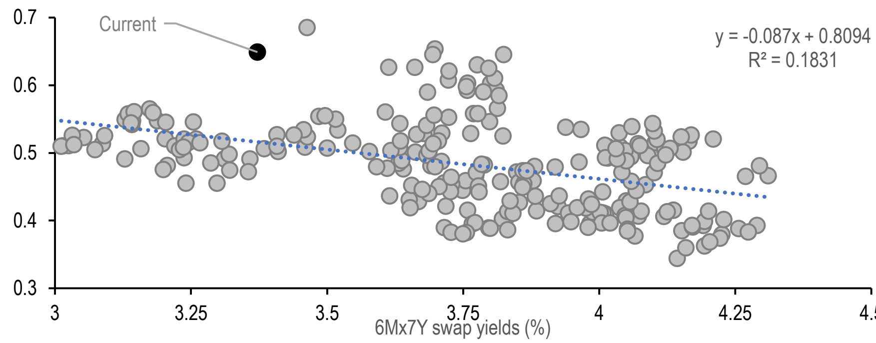
Figure 4: Conditional bear flatteners in the 6M fwd 7s/30s curve financed with 15% of the risk in 6Mx3Y payers is a way to gain asymmetric exposure to position for a reversal of recent moves

6Mx30Y minus 6M7Y plus 0.15*6Mx3Y swap yields versus 6Mx7Y swap yields, past 1Y; %



Source: J.P. Morgan

Swap spreads too have had a wild ride in the past week. Swap spreads across the curve are narrower by ~3-4bp, except for the underperforming 20-year sector where swap spreads are 6bp narrower (**Figure 5**). **The dramatic underperformance of the 20-year sector (which has historically been the most sensitive to balance sheet and leverage constraints) is a worrisome sign that suggests that banks may be starting to become concerned firms drawing upon credit lines to boost their own liquidity positions in the face of tightening credit conditions**. Such actions would of course result in loan growth and therefore balance sheet growth for banks themselves, which may then be forced to act to curtail balance sheet in other areas. Such growth was a notable feature of the 1Q20 onset of the pandemic, when loans and leases on commercial bank balance sheets grew by over $800bn in the short span of just a few months (**Figure 6**). The resulting balance sheet management activity also typically tends to be most pronounced in UST allocations, because it is much easier to take down balance sheet allocations to the more liquid sectors.

Figure 5: Swap spreads are narrower on the week, most significantly in the 20Y sector

Selected statistics for maturity matched swap spreads (bp), term funding premium* (bp/year) and zero-duration spreads** (bp), 3/28 - 4/4

	Start	Change	End	Min	Mean	Max
2Y	-17.4	-3.4	-20.8	-20.8	-18.0	-17.0
3Y	-23.2	-3.8	-27.0	-27.0	-24.0	-23.0
5Y	-30.7	-3.3	-34.0	-34.0	-31.2	-30.0
7Y	-38.8	-2.5	-41.4	-41.4	-38.8	-37.3
10Y	-45.7	-3.2	-48.9	-48.9	-45.7	-43.8
20Y	-70.6	-6.0	-76.7	-76.7	-71.9	-69.4
30Y	-79.2	-3.9	-83.1	-83.1	-79.4	-77.0
TFP	4.5	0.0	4.5	4.3	4.4	4.5
ZDS	-10.7	-3.4	-14.0	-14.0	-11.4	-10.6

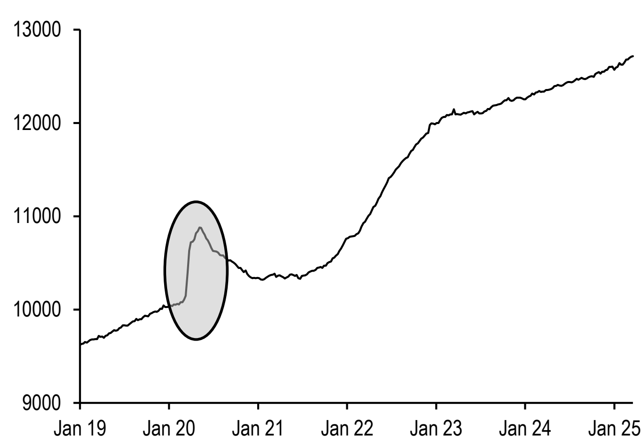
* Term Funding Premium (TFP) is defined as the negative of the slope of a regression of maturity matched swap spreads versus modified duration in benchmark sectors (2Y, 3Y, 5Y, 7Y, 10Y, 20Y and 30Y) on any given day

** Zero-duration swap spread is defined as the intercept from a regression of maturity matched swap spreads versus modified duration in benchmark sectors (2Y, 3Y, 5Y, 7Y, 10Y, 20Y and 30Y) on any given day.

Source: J.P. Morgan.

Figure 6: Loan growth was a notable feature of the 1Q20 onset of the pandemic

Loans and Leases in Bank Credit, All Commercial Banks, Jan 2019 - Mar 2025; $bn



Source: FRED, J.P. Morgan.

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Somewhat unfortunately, this exogenously induced balance sheet tightening comes against otherwise favorable tailwinds for swap spread wideners. Bank demand for duration, asset manager re-allocations into bond funds, and falling yields will all likely turn supportive of declines in term funding premium going forward, which means that swap spreads ought to be biased wider and the spread curve ought to be biased steeper (As a reminder, on any given day, we can regress maturity matched swap spreads in all the benchmark tenors versus modified duration of the corresponding bonds. We define zero-duration-spreads as the intercept from this regression, and we define term funding premium as the negative of the slope. Viewing swap spreads through the lens of these two summary metrics of the term structure offers many advantages. For more details, see Term Funding Premium and the Term Structure of SOFR Swap Spreads). **But in the near term, we think the dynamic of sudden growth in bank credit to corporates** (via draws on credit lines) **is likely to bring about an abrupt tightening in balance sheet availability for Treasuries**, and this has the potential to impact swap spreads in a somewhat nonlinear fashion. **Therefore, until and unless corporate credit conditions stabilize and the impact on bank balance sheets becomes clearer, we see swap spreads as biased narrower going forward**.

The risk-off tone in markets also pushed implied volatility sharply higher, led by the upper left - 6Mx2Y, for instance, is over 0.9 bp/day higher and now stands near 8 bp/day. Given the downward move in rates and the hitherto positive vol-rate correlation, this is of course well in excess of the change one might expect based on the move in rates (**Figure 7**).

We came into this week with a bullish bias on volatility, premised on tariff uncertainty, although we certainly did not expect this level of disruption in the markets. **The sharp rise in implied volatility despite sharply lower yields is typical of full blown flight-to-quality episodes**. **The key question then becomes - how quickly might implied vol retrace the upward spike seen in such periods**. We can look at previous episodes to gain some appreciation for how quickly implieds might in fact retrace. Since Jan 2020, there have been three episodes when 1Yx1Y implied vol - adjusted for its relationship with rates - spiked significantly in a short time, and then retraced. These episodes are, broadly speaking, (i) the onset of the COVID-19 pandemic in 1Q20, (ii) the SVB regional banking crisis of March 2023, and (to a somewhat lesser extent) the sudden shift in economic and Fed policy expectations spurred by the sudden weakening in jobs data in early August 2024. We describe these three episodes in broad strokes in **Figure 8**. The COVID 19 pandemic saw 1Yx1Y implied vol (adjusted for rates) rise by about 2bp/day over a 6 week period, followed by 50% retracement in the following 3 months. The magnitude of the spike in 1Q23 due to the regional banking crisis was even larger, with subsequent retracement taking about 3 months. Even in August of 2024, when there was a sudden shift in macroeconomic expectations because of a downward surprise in Jobs data, the spike was ~1.5bp/day, followed by 50% retracement in the next six weeks or so.

Figure 7: Implieds exploded into the rally and outperformed what would have been expected by the move in yields

Change in ATMF, Expected change in implied vol*, Actual change in implied vol, and Excess change in implied vol for various SOFR swaption structures, 3/28 - 4/4; bp/day

Structure	Chg in ATMF	Exp. Chg in Imp. Vol.	Act Chg. In Imp. Vol	Excess Chg in Imp. Vol
6mx2y	-0.327	-0.16	0.93	1.08
6mx5y	-0.321	-0.23	0.71	0.95
6mx10y	-0.305	-0.18	0.48	0.66
6mx30y	-0.285	-0.14	0.45	0.59
5yx2y	-0.321	-0.26	0.11	0.38
5yx5y	-0.294	-0.21	0.09	0.30
5yx10y	-0.289	-0.16	0.08	0.24
5yx30y	-0.264	-0.11	0.09	0.19

* Expected change is defined as the sum of the expected change in implied vol from the vol-rate backbone and the expected change due to the coefficient to rates in our deviation model. For details on our fair value framework for SOFR swaption implied volatility, see Interest Rate Derivatives 2025 Outlook.
** Excess change is calculated as the difference between actual change and expected change
Source: J.P. Morgan.

Figure 8: Flight-to-quality episodes can be characterized by sharp increased in implied vol, adjusted for rates

Upward move in implied vol (adjusted for rates)* (bp/day), duration of upward spike, and duration of subsequent correction for various flight-to-quality episodes since 2020

Episode	Upward move in Imp. Vol (adjusted for rates)	Duration of upward spike	Duration of subsequent correction
COVID 19 pandemic	2 bp/day	6 weeks	~3 months to 50% retracement
Regional bank crisis	5 bp/day	2 weeks	~3 months to 50% retracement
Weakness in jobs data	1.5 bp/day	< 1 week	~6 weeks to 50% retracement
Current	>1.3 bp/day		

* Upward move in implied vol (adjusted for rates) is defined as 1Yx1Y implied vol minus 1.7234*1Yx1Y swap yields-1.978. Where the coefficient and constant are computed based on a regression of 1Yx1Y implied vols vs 1Yx1Y swap yields since Jan 2020.
Source: J.P. Morgan.

In the current episode, we, of course, do not know if implied volatility has in fact peaked. But this historical examination of recent episodes suggests that we have likely not yet peaked - after all, the exogenous shock represented by the newly announced tariffs is very significant, but the move up in vols so far (at ~1.3bp/day so far) is well below the "mildest" of the three episodes mentioned above. Therefore, **it seems likely that implieds have more room to climb in the current episode. Moreover, history also suggests that implieds will be slow to retrace. Therefore, we see risk-reward considerations as favoring a bullish posture on volatility, despite the sharp run up already seen so far this week**.

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Trading Recommendations

- **Initiate 18m fwd 2s/10s steepeners**
We define different scenarios where inflation swap forwards will be realized but short rates and Fed expectations vary. From this analysis we find that risk-reward for the 6M-ahead outlook for 1Y forward curves is compelling and that curves anchored in 2s are likely to finish steeper than what is priced into 6M forward versions of these curves in all scenarios. Therefore, we recommend 18M fwd 2s/10s steepeners
-Receive-fixed in $100mn notional of a 10/04/26x2Y SOFR swap at a yield of 3.194% (PVBP: $188.4/bp per mn notional). Pay-fixed in $23.7mn notional of a 10/04/26x10Y SOFR swap at a yield of 3.543% (PVBP: $795.9/bp per mn notional). This trade is being initiated at a yield spread of 34.9bp.

- **Initiate conditional 7s/30s flatteners in a selloff constructed with 6M expiry payer swaptions and financed by selling ~15% of the forward DV01 risk in 3Mx3Y payer swaptions**
We favor conditionally positioning for a retracement of the recent moves. It remains possible that tariff negotiations can still take place, and the options market currently allow for premium neutral trades in a selloff that position for such a scenario. Conditional bear flattening exposure in the 7s/30s sector financed by selling ~15.4% of the risk in 6Mx3Y can be constructed at zero net premium, and the weighted spread corresponding to this trade remains negatively correlated with rates. If a benign outcome on tariffs emerge, yields will likely reprice higher and this weighted yield spread would likely flatten.
-Buy $100mn notional 6Mx7Y payer swaptions. (Notification date: 2025-10-06, swap tenor: 7Y, ATMF: 3.38%, strike: 3.38%, spot premium: 195.8bp per notional, forward premium: 199.9bp per notional, bpvol at inception: 7.16bp/day).
-Sell $33.9mn notional 6Mx30Y payer swaptions. (Notification date: 2025-10-06, swap tenor: 30Y, ATMF: 3.534%, strike: 3.534%, spot premium: 480.8bp per notional, forward premium: 491.1bp per notional, bpvol at inception: 5.97bp/day).
-Sell $33.6mn notional 6Mx3Y payer swaptions. (Notification date: 2025-10-06, swap tenor: 3Y, ATMF: 3.232%, strike: 3.232%, spot premium: 97.8bp per notional, forward premium: 99.9bp per notional, bpvol at inception: 7.8bp/day).
-This trade is constructed to be premium neutral at inception.

- **Initiate outright longs in 1Yx2Y swaption straddles**
We maintain our bullish bias on volatility as implieds likely have more room to climb in this "risk-off" episode but recommend rotating into a shorter expiry / shorter tail sector, and no longer recommend a long duration overlay
-Buy $100mn notional 1Yx2Y ATMF swaption straddles. (Notification date: 2026-04-06, swap tenor: 2Y, ATMF: 3.162%, strike: 3.162%, spot premium: 182.4bp per notional, forward premium: 189.4bp per notional, bpvol at inception: 7.77bp/day). This trade assumes active delta hedging every business day.

- **Unwind 2Yx10Y swaption straddle longs, paired with a receive fixed swap overlay to hedge directional exposure with rates**
We continue to maintain our bullish bias on volatility but we recommend rotating into the 1Yx2Y sector, and unwind this trade at a profit of 3.9abp. For original trade write up, see Fixed Income Markets Weekly 2025-03-28.

- **Unwind 3Y maturity matched swap spread wideners using the Jan '28 issue**
We are now biased towards narrower spreads given the recent exogenous induced balance sheet tightening, and we recommend unwinding this trade at a loss of 4.8bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-21.

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- **Unwind 1s/7s/30s (0.6 :-1:0.6 weighted) conditional belly cheapening butterfly in a selloff to position for a conditional rise in term premium**
  Term premium is likely biased lower in the near term, and we recommend unwinding trades that were designed to initiate long exposure to term premium. We unwind this trade at a loss of 1.8bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-14.
- **Unwind shorts in the belly of a 1Y forward 3s/7s/30s swap yield curve butterfly (0.5:-1.0:0.5 weighted)**
  For a similar reason as above, we unwind this trade at a loss of 5.8bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-07.
- **Unwind 3s/10s/20s (0.525:-1.0:0.525 weighted) conditional belly cheapening butterfly in a selloff to conditionally position for a rise in term premium**
  For a similar reason as above, we unwind this trade at a profit of 0.5bp. For original trade write up, see Fixed Income Markets Weekly 2025-01-31.
- **Unwind 2s/7s/30s (0.50:-1.0:0.65 weighted) belly cheapening butterfly in a selloff to conditionally position for a rise in term premium**
  For a similar reason as above, we unwind this trade at a profit of 1.2bp. For original trade write up, see Fixed Income Markets Weekly 2025-01-24.
- **Unwind overweights in 6Mx5Y swaption straddles versus a vega-neutral amount of 6Mx7Y swaption straddles**
  The implied volatility differentials between 6Mx5Y and 6Mx7Y no longer appears mispriced, and we recommend unwinding this trade at a profit of 1.2abp. For original trade write up, see Fixed Income Markets Weekly 2025-02-21.
- **Maintain 3M forward 3s/10s flatteners paired with 75% of the risk in 1Y fwd 1s/7s steepeners**
  P/L on this trade is currently 0.4bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-28.
- **Stay long in the belly of a U5/Z5/H6 3M SOFR futures butterfly (-0.45:1:-0.60 risk weighted)**
  P/L on this trade is currently -1.3bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-28.
- **Maintain 5M fwd 2s/5s conditional bull steepeners**
  P/L on this trade is currently -0.5bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-21.
- **Maintain 3Yx2Y / 2Yx15Y flatteners, paired with 40% risk in a 6Mx3M / 1Yx1Y flattener**
  P/L on this trade is currently -6.3bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-21.
- **Stay long 3% May 2042 maturity matched swap spreads versus short 1.75% Aug 2041 maturity matched swap spreads**
  P/L on this trade is currently -0.6bp. For original trade write up, see Fixed Income Markets Weekly 2025-03-21.
- **Stay short 6Mx10Y straddles versus a vega neutral amount of 6Mx30Y straddles**
  P/L on this trade is currently -2.1abp. For original trade write up, see Fixed Income Markets Weekly 2025-03-14.
- **Stay long 1Y forward 1Yx2Y volatility versus 1Y forward 1Yx10Y volatility by synthetically constructed via vega-weighted vanilla swaptions**
  P/L on this trade is currently 0.1abp. For original trade write up, see Fixed Income Mar-

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kets Weekly 2025-03-07.

- **Stay long 1Y forward 1Yx10Y forward volatility, synthetically constructed via 50% vega-weighted shorts in 1Yx10Y and longs 2Yx10Y swaption straddles** P/L on this trade is currently 0.6abp. For original trade write up, see Fixed Income Markets Weekly 2025-02-28.

Closed trades over the past 12 months

P/L reported in bp of yield for swap spread, yield curve and misc. trades, and in annualized bp of volatility for option trades, unless otherwise specified

Note: trades reflect Thursday COB levels, and unwinds reflect Friday COB levels

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Trade	Entry	Exit	P/L
Spreads and basis			
Pay-fixed in 1.875% Jul '26 maturity matched swap spreads	3/22/2024	4/5/2024	3.4
Initiate 20s/30s 1.33:1 wtd maturity matched spread curve steepeners hedged with a 30% risk weighted 20s/30s steepener, but use an equi-notional blend of the Nov 53s and Aug 53s to create a synthetic approximate par bond in the 30Y leg	2/23/2024	4/12/2024	(2.5)
Initiate 30Y swap spread wideners	3/15/2024	4/12/2024	(0.1)
Pay in 4% Jan '27 maturity matched swap spreads	4/5/2024	4/26/2024	2.2
Initiate 10Y swap spread wideners using the Nov '33 issue	3/8/2024	5/17/2024	0.9
Initiate exposure to a steeper 7s/10s 1:0.75 weighted swap spread curve, and we recommend implementing the 7Y narrower leg with TYM4 invoice spreads	5/10/2024	5/28/2024	0.3
Initiate 1:0.9 risk weighted 20s/30s maturity matched swap spread curve steepeners	5/31/2024	6/14/2024	3.9
Initiate 5s/10s off-the-run swap spread curve steepeners (100:60 weighted)	3/8/2024	7/12/2024	(4.7)
Initiate 7s/10s swap spread curve steepeners paired with 25% risk in a 7s/10s UST curve steepener	3/22/2024	7/12/2024	(0.2)
Pay in Feb 2037 maturity matched swap spreads versus receiving in USU4 invoice spreads	6/14/2024	7/12/2024	0.8
Buy Feb 37s versus selling USU4 Futures	6/14/2024	7/12/2024	2.7
Pay-fixed in 1.875 Feb 2027 maturity matched swap spreads	4/26/2024	7/26/2024	(5.9)
Initiate 5s/30s spread curve flatteners	5/3/2024	7/26/2024	5.1
Pay-fixed in 4% Feb 2034 maturity matched swap spreads	5/17/2024	7/26/2024	(6.7)
Initiate 10s/30s swap spread curve flatteners	7/26/2024	8/2/2024	(0.8)
Initiate TU/TY invoice spread curve flatteners (1:0.35 weighted)	6/7/2024	8/23/2024	(6.3)
Pay-fixed in 4.625% Feb '26 maturity matched swap spreads	5/31/2024	9/6/2024	0.3
Pay-fixed in 4.375% Aug '28 maturity matched swap spreads	5/31/2024	9/6/2024	(1.8)
Initiate 10Y swap spread narrowers	8/16/2024	9/6/2024	2.5
Initiate 3s/7s swap spread curve flatteners	8/16/2024	9/6/2024	1.4
Initiate 0.875% June 2026 / 0.875% September 2026 swap spread curve flatteners	8/16/2024	9/6/2024	1.3
Initiate 5s/30s swap spread curve flatteners	8/23/2024	9/6/2024	(0.3)
Initiate 7s/20s weighted swap spread curve steepeners	8/23/2024	9/20/2024	3.8
Initiate 100:80 weighted 20s/30s maturity matched swap spread curve flatteners	9/6/2024	9/20/2024	2.3
Initiate 7s/10s maturity matched swap spread curve steepeners	9/27/2024	10/4/2024	0.0
Initiate 1:0.75 risk weighted 7s/10s maturity matched swap spread curve steepeners	5/31/2024	10/18/2024	0.8
Initiate 2s/3s maturity matched swap spread curve flatteners	9/20/2024	11/1/2024	0.0
Initiate 3s/30s maturity matched swap spread curve flatteners	10/4/2024	11/1/2024	(2.1)
Initiate 2s/30s maturity matched swap spread curve flatteners	11/7/2024	11/15/2024	1.7
Initiate 5Y maturity matched swap spread narrowers	1/10/2025	1/24/2025	(2.4)
Initiate 5s/10s maturity matched swap spread curve steepeners	1/10/2025	2/7/2025	2.4
Initiate 7s/30s swap spread curve steepeners	1/24/2025	2/7/2025	2.9
Initiate 3s/20s maturity matched swap spread curve flatteners	2/7/2025	2/21/2025	4.5
Initiate FVH5 invoice spread narrowers in the 5Y sector by selling FVH5 versus receiving fixed in a forward starting swap	1/31/2025	2/28/2025	(3.0)
Initiate 3s/20s maturity matched swap spread curve flatteners	2/7/2025	2/28/2025	6.6
Initiate 5s/7s maturity matched swap spread flatteners	2/21/2025	2/28/2025	0.8
Sell 4% Feb 2030 maturity matched swap spreads versus 1.5% Feb 2030 spreads	3/7/2025	3/21/2025	2.4
Receive in 1.625% Aug '29 maturity matched swap spreads versus paying in 3.125% Aug '29 maturity matched swap spreads	1/31/2025	3/28/2025	(2.9)
Initiate 5Y maturity matched swap spread narrowers	1/31/2025	3/28/2025	(2.8)
Initiate 2s/5s maturity matched swap spread curve flatteners	1/31/2025	3/28/2025	(1.6)
Initiate 7s/10s maturity matched swap spread flatteners	2/21/2025	3/28/2025	1.9
Initiate 2s/20s maturity matched swap spread curve flatteners	2/28/2025	3/28/2025	0.3
Initiate 3Y maturity matched swap spread wideners using the Jan '28 issue	3/21/2025	4/4/2025	(4.8)

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Duration and curve	Entry	Exit	P/L
Initiate 3M forward 3s/20s swap curve steepeners, paired with 85% of the risk in a SFRM5 / 3Mx10Y curve flattener	03/08/24	04/05/24	3.2
Initiate 2Y forward 2s/5s swap curve steepeners paired with 40% risk in 3M forward 2s/5s flatteners	01/26/24	04/12/24	(11.4)
Initiate conditional exposure to a flatter 2s/5s swap yield curve in a selloff using 3M expiry payer swaptions	03/22/24	04/12/24	5.2
Initiate conditional exposure to a flatter 18M/5Y swap yield curve in a selloff using 6M expiry payer swaptions	04/05/24	04/12/24	3.1
Initiate conditional exposure to a flatter 1s/5s swap yield curve in a selloff using 3M expiry payer swaptions	02/23/24	04/26/24	(9.4)
Initiate 1Y forward 2s/5s swap curve flatteners, paired with weighted longs in H5 and H6 3M SOFR futures (20% and 10% respectively)	03/22/24	04/26/24	(9.5)
Initiate SFRM5 / 3Mx5Y flattener, hedged with a 20% risk weighted long in Reds	04/05/24	04/26/24	(5.0)
Initiate 5th/9th SOFR futures curve flatteners hedged with a risk weighted amount 2Y forward 2s/5s swap curve steepeners	04/12/24	05/03/24	3.0
Receive in the belly of a 0.625/1.0/0.375 weighted 3M forward 2s/7s/20s swap butterfly, with an additional 15% risk weighted long in June 2024 3M SOFR futures	02/23/24	05/17/24	2.7
Initiate 3M forward 2s/3s swap curve flatteners hedged with a 14% risk weighted long in the M4 3M SOFR futures	02/23/24	05/17/24	0.4
Initiate 3M forward 5s/15s swap curve flatteners paired with 70% risk in a 2Y forward 2s/20s swap curve steepener	03/22/24	05/17/24	2.8
Buy the belly of a 2s/5s/15s weighted swap butterfly (50:50 weighted)	04/12/24	05/17/24	2.4
Initiate 3M forward 1s/3s swap curve flatteners, hedged with a 65% risk weighted long in the 3Mx3M sector and a 25% risk weighted short in the 15Mx3M sector	05/03/24	05/17/24	2.1
Buy the belly of a U5/M6/H7 SOFR Futures butterfly (-0.37:1:-0.63 risk weighted)	03/01/24	05/31/24	(0.7)
Initiate a Greens/Blues steepener paired with 55% of the risk in a SFRM5 / 3Mx5Y swap curve flattener	03/15/24	05/31/24	2.2
Buy the belly of a Z5/U6/H7 3M SOFR futures butterfly (-0.33:1.0:-0.67 risk weighted)	04/19/24	05/31/24	1.8
Initiate 12Mx3M / 3Mx10Y flatteners, paired with 33% risk in a 3Mx2Y receive fixed swap	05/17/24	06/06/24	5.7
Initiate 3M fwd 3s/15s flatteners paired with 85% risk in 2Y fwd 3s/30s steepeners	05/17/24	06/06/24	4.5
Initiate 3Mx1Y / 2Yx1Y forward swap curve flatteners as a bullish proxy	05/31/24	06/06/24	11.5
Initiate 3Mx1Y / 2Yx1Y swap curve flatteners paired with 45% risk-weighted pay-fixed positions in 3Mx5Y swaps	05/31/24	06/06/24	0.0
Initiate conditional exposure to a flatter 1s/2s swap yield curve in a rally using 1Y expiry receiver swaptions	04/05/24	06/14/24	4.0
Initiate Z5/U6 SOFR futures flatteners paired with H6/Z6 SOFR futures steepeners (0.85:1 risk weighted)	03/01/24	07/12/24	1.8
Initiate conditional exposure to a steeper 10s/20s swap yield curve in a selloff using 9M expiry payer swaptions	03/15/24	07/12/24	4.0
Initiate 3M forward 10s/15s swap curve steepeners paired with 25% risk in 3M forward 3s/7s flatteners	04/26/24	07/12/24	3.5
Initiate 3M forward 10s/30s steepeners (1:1.5 risk weighted) paired with M5/Z5 3M SOFR futures flatteners	06/07/24	07/12/24	2.9
Initiate 15Mx3M / 1YX1Y forward swap curve flatteners, paired with 20% of the risk in a long in 18Mx3M and a 24% risk weighted short in 3Mx5Y forward swaps	05/03/24	08/02/24	(1.3)
Receive in 3Mx3Y and 3Mx5Y swaps versus paying in 3Yx1Y and 12Mx3M swaps	06/14/24	08/02/24	(8.8)
Initiate a synthetic 6M forward 2s/10s swap curve steepener, constructed by replacing the 2Y leg with a 6Mx3M / 18Mx3M flattener	07/12/24	08/02/24	(28.9)
Initiate a synthetic 3M forward 5s/30s swap curve steepener, constructed by replacing the 5Y leg with a 3Mx3M / 3Mx2Y flattener	07/26/24	08/02/24	(18.1)
Initiate conditional exposure to a flatter 1s/2s swap yield curve in a rally using 6M expiry receiver swaptions	07/26/24	08/02/24	(8.8)
Initiate conditional exposure to a flatter 1s/7s swap yield curve in a selloff using 6M expiry payer swaptions	07/12/24	10/04/24	(6.6)
Initiate conditional exposure to a flatter 1s/3s swap yield curve in a selloff using 3M expiry payer swaptions	09/13/24	10/04/24	0.4
Initiate Greens / 3Mx15Y flatteners (0.9:1.0 weighted)	09/20/24	10/04/24	6.1
Initiate conditional exposure to a flatter 1s/5s swap yield curve (100:102 weighted) in a selloff using 3M expiry payer swaptions	09/20/24	10/04/24	11.0
Initiate conditional exposure to a steeper 2s/10s curve in a rally using 3M expiry receiver swaptions, financed by selling 24% risk-weighted receiver swaptions on 7-year tails	09/13/24	12/13/24	(0.9)
Initiate 2Y forward 5s/30s swap yield curve steepeners, paired with a 25% risk weighted short in 3Mx7Y swaps	11/15/24	12/13/24	1.0
Initiate 1s/10s conditional bear flatteners using 3M expiry payer swaptions	12/13/24	01/10/25	(14.9)
Initiate 10s/30s swap curve steepeners paired with a 16% weighted shorts in 2s	12/13/24	01/10/25	0.8
Initiate 10s/30s conditional bull steepeners financed by selling 9% of the risk in 6Mx2Y receiver swaptions	12/20/24	01/10/25	0.7
Buy the belly of a 6M forward 5s/10s/30s swap yield curve butterfly (-0.5:1.0:-0.5 weighted)	12/20/24	02/07/25	0.6
Initiate 2Y forward 5s10s curve flatteners paired with a 10% short in SOFR H5 futures and a 20% long in SOFR H6 futures	01/10/25	02/07/25	(0.2)
Initiate 3Y forward 1s/5s swap curve steepeners paired with 110% of the risk in 2Y forward 1s/3s swap curve flatteners	01/10/25	02/07/25	2.6
Initiate 3M fwd 2s/7s/15s belly cheapening flies (45:45 weighted on the wings)	02/28/25	03/07/25	3.7
Initiate TUM5/TYM5/USM5 belly cheapening flies (45:45 weighted on the wings)	02/28/25	03/07/25	4.8/32
Receive in Blues and 5s (70% and 40% risk weights respectively) versus paying in Greens	02/07/25	03/14/25	(4.4)
Pay fixed in 2Yx1Y swaps vs receiving in 2Yx3Y and 6Mx10Y swaps (40:80 weighted)	02/07/25	03/14/25	(6.7)
Initiate 78:100 risk weighted 3Y forward 2s/15s swap curve flatteners	02/21/25	03/14/25	(6.9)
Receive fixed in 6Mx15Y forward swaps, versus paying in a 30:55 risk weighted blend of 3Mx5Y and 3Yx2Y forward starting swaps	02/21/25	03/14/25	(4.8)
Initiate 9Mx3M / 15Mx3M swap curve flatteners paired with 2Yx2Y / 3Mx10Y swap curve flatteners	03/07/25	03/21/25	1.1
Initiate 3M fwd 10s/30s flatteners paired with a 15% risk weighted in long in 3Mx2Y swaps	02/28/25	03/28/25	(7.8)
Initiate 2s/7s/30s (0.50:-1.0:0.65 weighted) belly cheapening butterfly in a selloff to conditionally position for a rise in term premium	01/24/25	04/04/25	1.2
Initiate 3s/10s/20s (0.525:-1.0:0.525 weighted) conditional belly cheapening butterfly in a selloff to conditionally position for a rise in term premium	01/31/25	04/04/25	0.5
Sell the belly of a 1Y forward 3s/7s/30s swap yield curve butterfly (0.5:-1.0:0.5 weighted) to asymmetrically position for a rise in term premium	03/07/25	04/04/25	(5.8)
Initiate 1s/7s/30s (0.6 :-1:0.6 weighted) conditional belly cheapening butterfly in a selloff to position for a conditional rise in term premium	03/14/25	04/04/25	(1.8)

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Options	Entry	Exit	P/L
Overweight 6Mx2Y swaption straddles versus a theta-neutral amount of 6Mx5Y swaption straddles	01/19/24	04/12/24	(8.8)
Sell 2Yx30Y swaption volatility versus buying 50% of the vega risk in 2Yx2Y swaption volatility , and pay fixed in 2Yx 10Y swaps to neutralize the bullish bias in this trade	02/23/24	04/12/24	1.5
Buy 6Mx10Y volatility versus 6M forward 6Mx10Y volatility, synthetically constructed via suitably weighted 1Yx10Y and 6Mx10Y swaptions	04/05/24	04/12/24	3.2
Buy 2Yx5Y swaption straddles on a delta hedged basis	04/12/24	04/19/24	1.0
Sell 6Mx10Y straddles on a delta hedged basis	04/26/24	05/03/24	3.1
Sell 6Mx15Y straddles on a delta hedged basis	05/03/24	05/10/24	(1.6)
Sell 1Yx2Y volatility versus buying a theta neutral amount of 1Yx5Y volatility	05/17/24	06/06/24	0.6
Initiate Fronts/Green curve flatteners, paired with delta hedged long volatility positions in the 1Yx10Y swaption sector	05/31/24	06/06/24	5.6
Initiate exposure to long curve volatility by buying 6Mx2Y and 6Mx10Y straddles (41:60 vega weighted) versus selling 6Mx5Y straddles	12/08/23	06/07/24	1.1
Buy 2Yx5Y swaption straddles on a delta hedged basis, versus 6Mx1Y / 18Mx1Y flatteners	06/07/24	06/14/24	3.6
Initiate outright shorts in 3Yx30Y swaption implied volatility, but delta hedge monthly or if rates move by over 25bp in either direction since the last delta hedge	03/08/24	07/12/24	(5.0)
Buy 1Yx30Y volatility versus 1Y forward 1Yx30Y volatility, synthetically constructed via suitably weighted 2Yx30Y and 1Yx30Y swaptions	03/15/24	07/12/24	(2.5)
Buy 65% risk weighted 1Yx10Y swaption volatility versus selling 1Y forward 2Yx10Y swaption volatility, synthetically constructed via suitably weighted 1Yx10Y and 3Yx10Y swaptions	04/12/24	07/12/24	(4.4)
Sell 6Mx10Y swaption straddles on a delta hedged basis, paired with a short position in Greens	06/14/24	07/12/24	2.2
Buy 1Yx5Y straddles versus selling vega-neutral amount of 5Yx5Y straddles	07/12/24	08/02/24	4.7
Buy A+100 1Yx5Y payer swaptions and sell A-100 1Yx5Y receiver swaptions, delta-hedged daily, to position for a correction in skew	04/19/24	08/23/24	(8.5)
Buy 6Mx5Y swaption straddles versus selling 150% of the vega risk in 6Mx30Y straddles	07/12/24	09/13/24	2.2
Initiate longs in 6Mx5Y swaption implied volatility on an outright basis, delta hedged daily	08/02/24	09/13/24	(8.5)
Overweight 6Mx5Y and 6Mx30Y swaption volatility (vega weights of 0.32 and 0.76, respectively) versus selling 6Mx10Y swaption volatility	04/05/24	10/04/24	(1.2)
Buy 3Yx3Y versus selling 10Yx10Y swaption straddles	09/06/24	10/04/24	(5.6)
Buy 1Yx10Y swaption straddles on a delta hedged basis coupled with a weighted long in S&P 500 futures	09/13/24	10/04/24	1.2
Overweight 1Yx10Y straddles versus a gamma-neutral amount of 1Yx15Y straddles	05/03/24	10/18/24	(2.1)
Buy 1Yx3Y versus selling 105% of the vega risk in 1Yx10Y swaption straddles	09/20/24	10/18/24	(0.2)
Sell 6Mx10Y straddles versus buying 130% of the vega weight in 6Mx30Y straddles	09/27/24	10/18/24	(0.3)
Buy 6Mx2Y swaption volatility versus selling a carry-neutral amount of 6Mx5Y swaption volatility	09/27/24	10/18/24	0.7
Sell 6Mx10Y straddles on a delta-hedged basis	10/04/24	10/18/24	(1.5)
Buy 6Mx2Y straddles on a delta-hedged basis	10/04/24	11/01/24	2.5
Buy 3Mx10Y straddles on a delta-hedged basis	11/01/24	11/15/24	(13.8)
Buy 65% risk weighted 1Yx10Y swaption volatility versus selling 1Y forward 2Yx10Y swaption volatility, synthetically constructed via suitably weighted 1Yx10Y and 3Yx10Y swaptions	10/18/24	01/10/25	(4.8)
Sell 1Yx5Y swaption straddles versus buying a theta-neutral amount of 1Yx30Y swaption straddles	12/13/24	01/10/25	(1.5)
Initiate longs in 1Yx5Y swaption straddles	01/10/25	01/31/25	(5.8)
Buy 1Yx10Y swaption straddles paired with a receive-fixed swap overlay to hedge against a decrease in implieds due to lower yields	01/24/25	01/31/25	(2.9)
Sell 3Mx5Y swaption straddles, delta-hedged bi-weekly	02/07/25	02/21/25	12.0
Overweight 1Yx5Y straddles versus a gamma-neutral amount of 1Yx10Y straddles	01/10/25	03/07/25	0.2
Buy 1Yx10Y straddles versus 10Yx10Y straddles, hedged with a 65% vega weighted short in 2Yx2Y swaption straddles, and add a short duration overlay by paying a suitable amount in 2Yx2Y forward swaps	01/24/25	03/07/25	0.0
Buy 1Yx30Y straddles versus selling a vega-neutral amount of 2Yx30Y straddles	02/07/25	03/07/25	0.6
Initiate longs in 3Yx10Y swaption straddles, paired with a receive-fixed swap to hedge directional exposure	02/21/25	03/14/25	1.1
Initiate longs in 5Yx5Y swaption straddles, paired with a receive fixed swap to hedge directional exposure	03/21/25	03/28/25	0.8
Buy A+100bp payer swaptions and sell A-100bp receiver swaptions, delta-hedged daily, to position for a correction in skew	03/21/25	03/28/25	(1.7)
Overweight 6Mx5Y swaption straddles versus a vega-neutral amount of 6Mx7Y swaption straddles	02/21/25	04/04/25	1.2
Initiate 2Yx10Y swaption straddle longs, paired with a receive fixed swap overlay to hedge directional exposure with rates	03/28/25	04/04/25	3.9
Treasury Futures	**Entry**	**Exit**	**P/L**
Sell the 4.75% Nov 2053 WNM4 basis, versus buying payer swaptions	3/8/2024	4/12/2024	1.0
Initiate calendar spread wideners in US Futures	5/17/2024	5/28/2024	(3.0)
Initiate calendar spread narrowers in UXY Futures	5/17/2024	5/28/2024	0.4
Initiate calendar spread narrowers in FV futures	5/17/2024	5/28/2024	1.0
Initiate calendar spread wideners in US Futures	8/16/2024	8/23/2024	(0.8)
Initiate calendar spread narrowers in FV Futures	8/16/2024	8/23/2024	(0.1)
Buy the USZ4 factor-weighted CTD basis	9/13/2024	9/20/2024	2.4
Buy the WNZ4 factor-weighted CTD basis	9/13/2024	9/20/2024	1.0
Initiate calendar spread narrowers in FV futures	11/15/2024	11/25/2024	0.0
Initiate calendar spread wideners in US futures	11/15/2024	11/25/2024	0.0
Buy the FVH5 factor weighted CTD basis with repo termed out to 3/3/2025	11/15/2024	12/13/2024	2.8
Buy the USH5 factor weighted CTD basis with repo termed out to 3/3/2025	11/15/2024	1/10/2025	0.7
Total number of trades			**150**
Number of winners			**90**
Hit rate			**60%**

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Recent Weeklies	
28-Mar-25	Signal and Noise
21-Mar-25	Better late than never
14-Mar-25	Loonie Tunes
07-Mar-25	Schrodinger's Tariffs
28-Feb-25	Extraterrestrial Inflation
21-Feb-25	Extraterrestrial Tail Risk
07-Feb-25	And the MVP goes to ...
31-Jan-25	DeepFreeze
24-Jan-25	DISP-play time
10-Jan-25	Strong Jobs Report, Mike Drop
20-Dec-24	It's beginning to look a lot like a pause
13-Dec-24	Twelve voters voting
15-Nov-24	It's an easing cycle, not an easy cycle
08-Nov-24	Elephant spirits
01-Nov-24	Purple rain
25-Oct-24	Déjà vu awaits in funding markets
18-Oct-24	Counting down to November
04-Oct-24	Strong data, tighter liquidity conditions and rising geopolitical risk
27-Sep-24	Waiting Game
20-Sep-24	From Dovish Pause to Hawkish Easing
13-Sep-24	Schrodinger's Cut
06-Sep-24	Rates, unlike the economy, are not yet in "equipoise"
23-Aug-24	False Fall
16-Aug-24	Hopscotch
2-Aug-24	Powell sees the data, markets see one data point
26-Jul-24	Joie de Louvre
12-Jul-24	The Evitable Conflict
14-Jun-24	Pardon my French
07-Jun-24	The BOC and ECB begin a game of BOCCE-Ball, likely without the Fed for now
31-May-24	The planets, if not the stars, are aligning
17-May-24	Another brick in the vol
10-May-24	The election enters the hearts and minds of options traders
3-May-24	R2-P2
26-Apr-24	Perfectly priced to patience
19-Apr-24	Should I stay or should I go?
12-Apr-24	A hairpin bend on the road to easing
5-Apr-24	Shaken, not stirred

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Outlooks	
26-Nov-24	Interest Rate Derivatives 2025 Outlook: Nobody said it was easy
28-Jun-24	Interest Rate Derivatives 2024 Mid-Year Outlook: Waiting for someone or something to show you the way
Recent Special Topic Pieces	
12-Feb-25	US bond futures rollover outlook: March 2025 / June 2025
08-Nov-24	US bond futures rollover outlook: December 2024 / March 2025
13-Aug-24	US bond futures rollover outlook: September 2024 / December 2024
10-Jul-24	Trading Principal Factor Volatility
15-May-24	US bond futures rollover outlook: June 2024 / September 2024
29-Apr-24	Term Funding Premium and the Term Structure of SOFR Swap Spreads

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Short-Term Fixed Income

- Our US economists now expect real GDP growth for the full year (4Q/4Q) of -0.3% from 1.3% previously. They also now foresee the Fed to cut at every meeting starting in June through January, bringing the top of the terminal rate to 3%
- In turn, we along with our Treasury strategists, revised our interest rate forecasts. We now expect SOFR, 2y Treasuries, and 10y Treasuries to end the year at 3.10%, 2.70%, and 3.65% respectively
- Despite volatility in risk assets, funding conditions in repo remained stable and well-behaved with GC trending lower over the course of the week
- That stability should continue in the weeks ahead as risk-off flows move into MMFs and front-end managers focus on shortening duration and boosting liquidity, increasing the demand for repo
- The upcoming tax season might precipitate some upward pressure on funding, but we expect that to be brief. The GSE P&I period and further T-bill paydowns in late April should continue to provide a soft funding environment
- Beyond April, as we approach within 1-3 months of the X-date in late July/early August, MMFs should also be leaning more into repo and avoiding X-date T-bill maturities
- However, while funding conditions should remain soft in the coming weeks, we do not think there is much room for the front SOFR/FF basis contracts to widen further from here due to concentrated dealer repo supply and counterparty limits between MMFs and dealers
- **Near-term catalysts**: CPI (4/10), PPI (4/11), Consumer Sentiment (4/11), Retail Sales (4/16), Manufacturing PMI (4/23)

Market commentary

President Trump's announcement on reciprocal tariffs turned out to be much worse than feared, sending both equity markets and Treasury yields sharply lower. If implemented, the average effective US tariff rate will likely approach a 25% rate, a substantial jump from 10% currently and 2.5% at the start of the year. The policies, if sustained in full, could send a substantial macroeconomic shock, that magnified by its negative impact on sentiment and supply chain disruptions, could very well push the US economy into a recession this year. Our economics team now believe the odds have a global recession stands at 60% (see *There will be blood*, B. Kasman, 4/3/25). In particular, in the US, they now expect real GDP for the full year (4Q/4Q) to drop from 1.3% to -0.3%, contracting into a recession under the weight of the tariffs. Unemployment rate will rise over time up to 5.3% and the full-year core PCE inflation to increase by 1.4%-pts to 4.4% (see *An update on our economic outlook*, M Feroli, 4/4/25).

For their part, the rates market is positioning for a Fed to respond more aggressively, in response to the tariff developments despite solid payroll data and Chair Powell's comments on Friday which reaffirmed the Fed's wait and see mode (see *Last curtain call for Goldilocks*, M. Feroli, 4/4/25). OIS forwards are now pricing in ~100bp of cuts in 2025 versus ~70bps of cuts last week. More notably, implied Fed probabilities based on options on December SOFR futures not only see higher odds of cuts vs. hikes, but also higher odds of a deeper-cut scenario (i.e., nearly a 72% chance that the Fed could cut by 125bp by year-end, Figure 34). Given likely odds of recession occurring this year, our economists now expect the FOMC to cut at every meeting starting in June through January, bring the top of the

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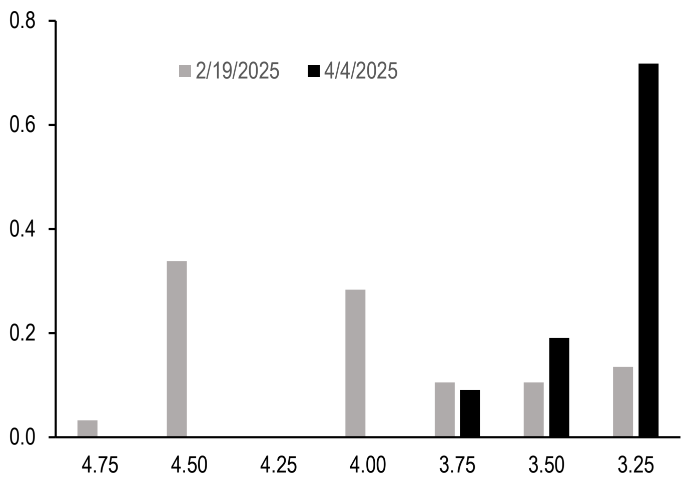
terminal rate to 3%. Accordingly our Treasury strategists have revised lower their interest rate forecasts, with the 10-year forecast moving from 4.15% to 3.65%, and 2-year from 3.65% to 2.70% (see *Treasuries*). They also continue to recommend adding duration in 2-year Treasuries to position for lower yields. We've also updated our SOFR and EFFR forecasts to reflect our Fed policy expectations (Figure 35).

Figure 34: Implied Fed probabilities based on options December SOFR futures not only see higher odds of cuts vs hikes, but also increased odds of a deeper-cut scenario

Weights on year-end 2025 policy rate scenarios representing a range of different Fed Fund outcomes, as calculated from a decomposition of the implied probability distribution associated with Dec 2025 SOFR futures*; 2/19/2025 and 4/4/2025



Source: J.P. Morgan., CME

Footnote: * We enumerate a list of scenario-specific Normal distributions with fixed standard deviations and means that are separated by 25bp, and then require the implied distribution to be a weighted combination of these individual distributions. The weights are then solved for, by fitting to the observed prices of calls and puts at various different strikes. For more details of our approach, see [What's the rush?]

Figure 35: We have revised our interest rate forecast to reflect changes in rate policy expectations

J.P. Morgan interest rate forecast (%)

	2Q25 30 Jun	3Q25 30 Sep	4Q25 31 Dec	1Q26 31 Mar
Rates (%)				
EFFR	4.10	3.60	3.10	2.85
SOFR*	4.10	3.60	3.10	2.85
UST 2y	3.50	3.05	2.70	2.70
UST 3y	3.50	3.25	3.05	3.05
UST 5y	3.65	3.30	3.05	3.05
UST 7y	3.80	3.45	3.20	3.20
UST 10y	3.95	3.75	3.65	3.65
UST 20y	4.40	4.20	4.10	4.10
UST 30y	4.35	4.20	4.15	4.15

Source: J.P. Morgan

As always, the funding markets tend to operate in their own little world, and despite the volatility in risk assets and out the curve in fixed income, repo was stable this week. Perhaps taking a cue from quarter-end where SOFR rose 7bp to 4.41% and was still dealing with the overhang in the days after, SOFR/FF basis narrowed 0.5-1bp across the curve (Figure 36). Still, funding conditions generally remained well-behaved with GC trending lower over the course of the week.

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Figure 36: In the days after quarter-end, SOFR/FF basis narrowed 0.5-1bp across the curve

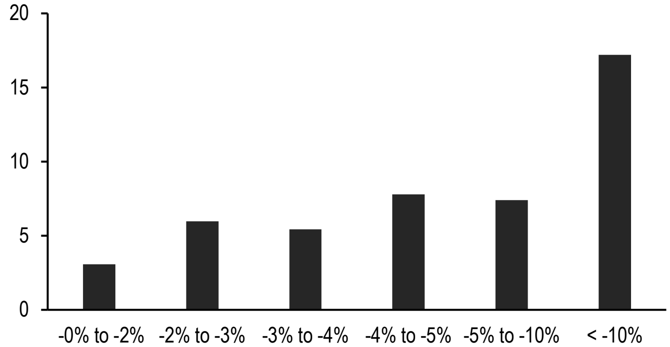
SOFR/FF basis contracts (bp)

	Current	1d ago	1w ago	1m ago	DoD	WoW	MoM
APR 25	0.50	0.50	1.50	0.50	0.00	-1.00	0.00
MAY 25	0.50	1.00	1.50	1.00	-0.50	-1.00	-0.50
JUN 25	0.00	0.00	1.00	0.50	0.00	-1.00	-0.50
JUL 25	-1.50	-1.00	-0.50	-0.50	-0.50	-1.00	-1.00
AUG 25	-3.00	-2.50	-2.50	-2.00	-0.50	-0.50	-1.00
SEP 25	-4.00	-3.50	-3.50	-3.00	-0.50	-0.50	-1.00
OCT 25	-4.00	-4.00	-3.50	-3.50	0.00	-0.50	-0.50
NOV 25	-4.50	-4.00	-4.00	-4.00	-0.50	-0.50	-0.50
DEC 25	-5.50	-5.00	-5.00	-5.00	-0.50	-0.50	-0.50
JAN 26	-4.50	-4.00	-4.00	-3.50	-0.50	-0.50	-1.00
FEB 26	-4.00	-3.50	-3.50	-3.00	-0.50	-0.50	-1.00
MAR 26	-4.50	-4.00	-4.00	-3.00	-0.50	-0.50	-1.50

Source: Bloomberg Finance, L.P., J.P. Morgan

Figure 37: Large risk-off episodes (e.g., > 10% equity market correction in a week) tend to bring flows into MMFs and the front-end

Average weekly change in retail MMF AUMs during S&P 500 declines ($bn), 2015-present

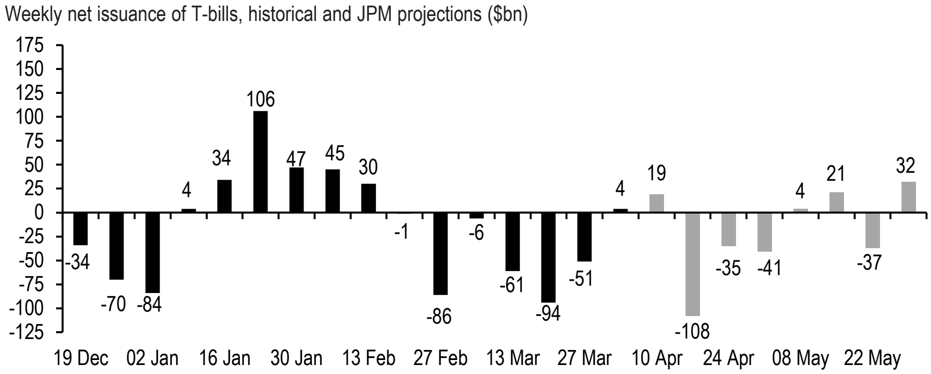


Source: Crane Data, iMoneyNet, J.P. Morgan

Can that repo stability be sustained in the weeks ahead? We think so. Large risk-off episodes (e.g., >10% equity market correction in a week) tend to bring flows into MMFs and the front-end (Figure 37). Perhaps more importantly, for front-end managers, there is low conviction to extend out the curve, and at an inverted yield curve at that, given the heightened uncertainty in regards to how the economy will unfold and how the Fed will respond over the coming 12 months. Focus will likely be on shortening duration and shoring up liquidity amidst the volatility, which translates to demands for repo and 1-3 month maturities. The upcoming tax season, and the related MMF and deposit outflows, will provide some offset, but they should be short-lived as the markets move into the GSE P&I period. Further T-bill paydowns should also continue in April which will provide softer repo funding conditions (Figure 38). Beyond April, as we approach within 1-3 months of the X-date in late July/early August, MMFs should also be leaning more into repo (more on that below).

Figure 38: Further T-bill paydowns should also continue in April which will provide softer repo funding conditions

Weekly net issuance of T-bills, historical and JPM projections ($bn)



Source: J.P. Morgan

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That said, as we noted and witnessed in March, there is limited room for SOFR to soften meaningfully below 4.30%. Concentrated repo supply and counterparty limits between MMFs and dealers challenge funds in how much they can do with other dealers for repo transactions. Pricing power also appears to be shifting away from dealers due to the sheer amount of collateral they have to fund on a day-to-day basis as reflected in the TGCR/ON RRP spread. To that end, April and May SOFR/FF basis contracts are currently trading around flat to +1bp which we think is fair value (see *Not so wide: A closer look at SOFR/FF*, T. Ho, 2/27/25).

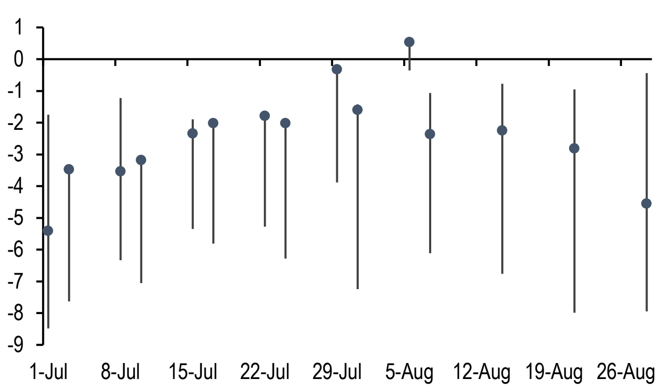
How MMF portfolio's pivot during a debt ceiling showdown

Despite recent reports that suggest tax receipts might not be as strong compared to last year (with the implication that this could bring forward the X-date), our Treasury strategists are leaning against those assumptions and maintain their view that the X-date is likely to occur in early August. For its part, the T-bills market is also pricing in a late July/early August potential technical default as those bills are currently trading cheap to surrounding bills (Figure 39).

MMFs are large buyers of T-bills (e.g., they comprise >40% of the market), so it's worth considering how they might position their portfolios from an asset allocation and maturity profile perspective in the run up to the X-date. Looking at the most recent debt ceiling period in 2023, not surprisingly, MMFs strategically adjusted their T-bill holdings to avoid X-date maturities as a way to manage headline risk and/or default risk. Specifically, in the run-up to the June 2023 X-date, MMFs significantly shortened their T-bill exposures, holding over 40% of T-bills that mature in 31-60 days in March and as much as 74% of T-bills that mature in <30 days in April. As soon as a debt ceiling resolution was reached in May, MMFs began extending their maturities, with the 3-month maturity bucket increasing to 35% (Figure 40). Reflecting this, WAMs of prime, government, and Treasury MMFs jumped by 4 days, 4 days, and 8 days respectively during the month of May (Figure 41). Historically, T-bill pricing impacts due to potential technical defaults typically do not begin to surface until 1-3 months before the X-date, which makes sense considering the maturity allocation changes among MMFs in the months leading up to it.

Figure 39: T-bills are pricing in a late July/early August potential technical default as those bills are currently trading cheap to surrounding bills

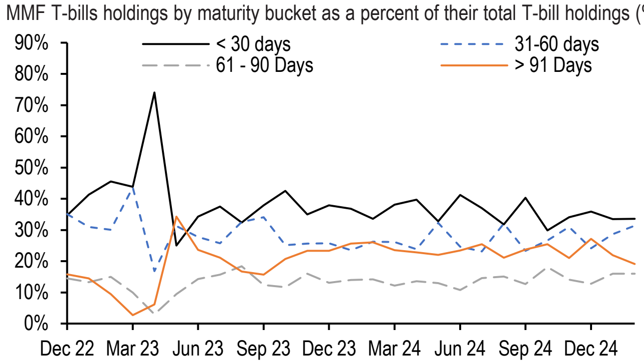
T-bill spreads to matched-maturity SOFR with 1-month ranges and levels as of 4/3/25 (bp)



Source: J.P. Morgan

Figure 40: As soon as a debt ceiling resolution was reached in May 2023, MMFs began extending their maturities, with the 3-month maturity bucket increasing to 35%...

MMF T-bills holdings by maturity bucket as a percent of their total T-bill holdings (%)



Source: Crane Data, J.P. Morgan

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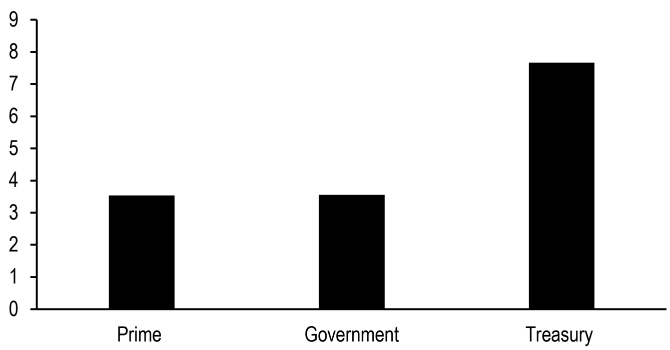
From an asset allocation perspective, MMFs also significantly increased their exposure to repo, and to a smaller extent, to Agencies during prior debt ceiling episodes (Figure 42). This makes sense as 1) government MMFs dominate MMF AUMs, 2) government MMFs are limited to buying only Treasury and Agency securities (including repo), and 3) MMFs tend to shore up liquidity as a precautionary measure against potential outflows from certain event risks. Though we would expect a similar pattern to unfold as we get increasingly close to the X-date, we suspect the shift to repo might be more geared more towards ON RRP as opposed to dealer repo this time around given counterparty limits between MMFs and dealers and dealer repo concentration (see *February MMF holdings update: non-Fed repo surges to record highs*, T. Ho, 3/12/25). On the margin, this might contribute to slightly softer funding conditions, biasing SOFR/FF wider, though as noted above, we don't expect this to prompt SOFR to fall towards the ON RRP rate.

Figure 41: ...pushing MMF WAMs higher during the same period

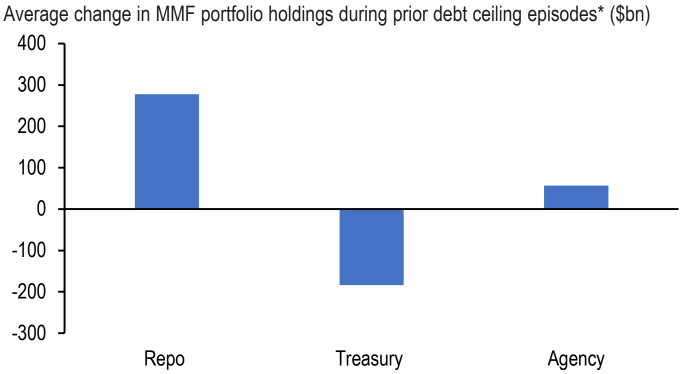
Change in MMF WAMs in May 2023 (days)



Source: Crane Data, J.P. Morgan

Figure 42: MMFs significantly increased their exposure to dealer repo, and to a smaller extent, Agencies during prior debt ceiling episodes

Average change in MMF portfolio holdings during prior debt ceiling episodes* ($bn)



Source: Crane Data, J.P. Morgan
* 2011,2015,2021, and 2023

Excerpted from *Short-Term Market Outlook and Strategy*, Teresa Ho, April 04, 2025

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US Agencies and $-SSAs

Supply update

- US Agency debt outstanding declined $23bn YTD, concentrated among FHLB debt. We continue to see a rotation from discount note to floating rate note issuance from the FHLBs, motivated by the evolution of advance composition and demand trends...
- ...Indeed short-dated floating rate notes spreads have compressed, as MMFs have increased their preference for floaters over discounts given more attractive valuations
- $-SSA spreads have widened to near their widest levels since April 2024 and we turn neutral given the revision higher to our HG spread YE25 targets. Gross issuance for the six issuers we cover totalled $15bn this March, more than the typical seasonal

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US Agencies

Agency debt outstanding has declined $23bn YTD through February. In particular, FNMA and FHLMC debt outstanding declined $3bn each, whereas FHLB outstanding debt declined $17bn (**Figure 43**). Underneath this topline number, FHLB issuance continues to rotate from discount notes to floating rate notes, with a $59bn increase in FRNs outstanding partially offset by a $39bn reduction in discount notes outstanding. **Figure 44** shows that floaters comprise 38% of FHLB debt outstanding as of March, the highest share in over two decades. The rotation in issuance from discos to floaters makes sense from a funding perspective, whereby over the past few years advances have been lengthening in maturity and an increasing share are floating rate in nature. Thus it is unsurprising that discount notes have borne the brunt of declining advance demand.

Figure 43: Agency debt outstanding has declined YTD, concentrated among the FHLBs…

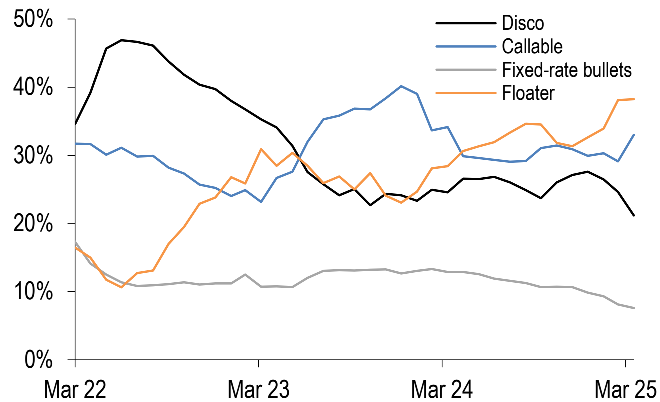
2025 net debt issuance from FNMA, FHLMC, and FHLB; $bn

	Discos	Bullets	*FRNs**	Callables	YTD
FNMA	0	-4	*-3*	1	-3
FHLMC	1	-3	*0*	-1	-3
FHLB	-39	37	*59*	-15	-17
Total	**-39**	**30**	***56***	**-14**	**-23**

*FRNs are a subset of Bullets
Source: FNMA, FHLMC, FHLB

Figure 44: …and we note there has been a rotation among FHLB funding from discount notes to FRNs

Composition of FHLB funding by product type*; %



*Through March 2025
Source: FHLB

Increased floater issuance also comes against the backdrop of richer valuations. Indeed FRN DMs have tightened further over the last 6 months, with shorter-dated notes having recently traded through ON SOFR (**Figure 45**). We think this in part reflects increased demand from MMFs for Agency floaters given the yield pickup over discount notes. Discount notes have been pulled richer in recent months alongside T-bills as the stock of T-bills outstanding continues to decline with Treasury operating under the DISP (**Figure 46**). Indeed February Crane data reveal an uptick in FHLB FRN holdings by MMFs, alongside a decline in FHLB discount note holdings (see *February MMF holdings update*, Teresa Ho, 3/12/25).

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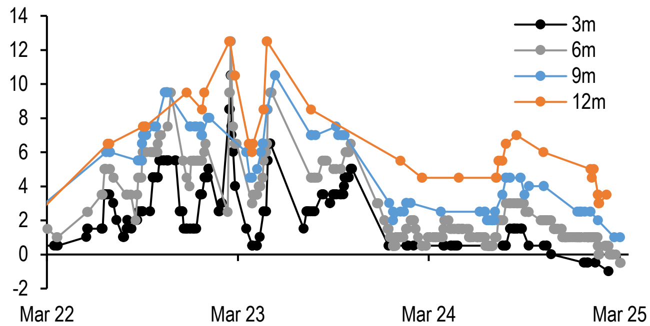
Figure 45: FHLB FRN spreads have continued to tighten, turning negative among shorter-dated notes

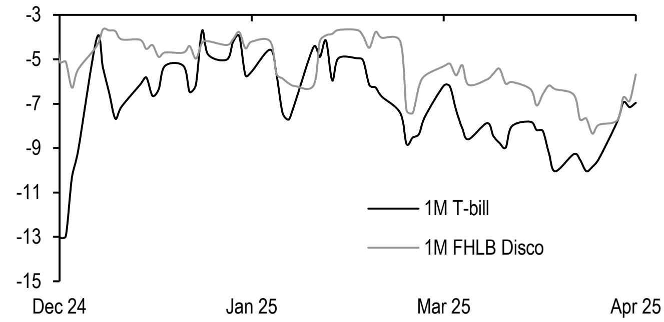
Spreads to ON SOFR on newly issued FHLB FRNs by maturity; bp



Source: FHLB, J.P. Morgan

Figure 46: FHLB discount notes have richened alongside T-bills in recent months

1-month FHLB discount note and T-bill matched maturity spreads to SOFR; bp



Source: FHLB, J.P. Morgan

$-SSAs

Amid rising concerns over greater issuance and against the backdrop of increased trade policy fears, $-SSA spreads have moved to near their widest levels since April 2024 (**Figure 43**). Turning first to issuance, we continue to believe increased funding needs for the multilaterals will likely be a 2026 story, and moreover our European colleagues believe any expected increase in issuance tied to European defense and aid spending is likely to be gradual and manageable (see *Global SSA Mar25 Outlook*, Aditya Chordia, 3/25/25). Turning next to trade policy, we cannot be so dismissive. We entered the year with an overweight recommendation on $-SSA spreads as we saw modest room for further tightening given our outlook for HG spreads to tighten incrementally, Treasury yields to decline, and Bobl/UST spreads to remain roughly unchanged. However following the more onerous than expected tariff announcement this week our credit strategists revised their JULI YE25 target 35bp wider to 125bp, which is roughly 20bp wider from current levels and could spell further pressure on $-SSA spreads ahead (see *Credit Market Outlook & Strategy*, Eric Beinstein, 4/4/25). Moreover, while there remains room for Treasury yields to decline if a recession takes hold, Bobl/UST spreads have already widened significantly since the announcement of increased German fiscal expansion. **As such, given the risks discussed, with spreads appearing fair in our valuation framework, we turn neutral on $-SSA spreads.**

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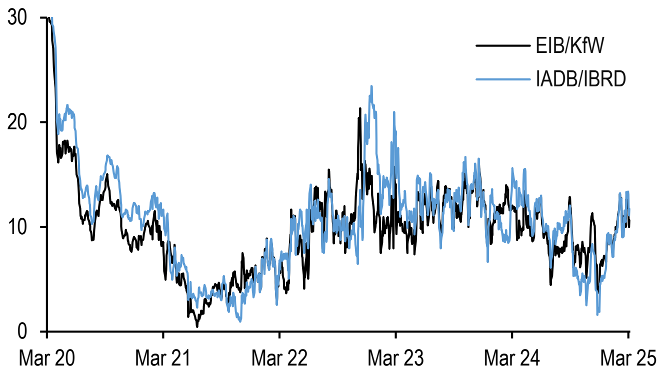
Figure 47: $-SSA spreads have reached their widest levels since April 2024 and we turn neutral on $-SSA spreads

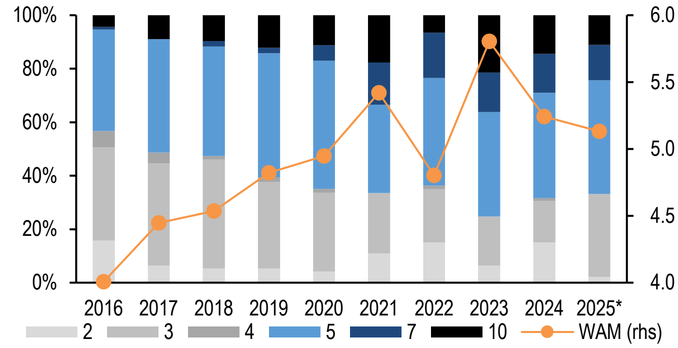
5-year average EIB/KfW and IADB/IBRD versus 5-year Treasuries matched-maturity SOFR spread of spreads; bp



Source: J.P. Morgan

Figure 48: The WAM of recent $-SSA issuance has shortened amid concentration in the 3- and 5-year maturity points

Maturity distribution of $-SSA issuance (lhs; %) vs average weighted average maturity (rhs; years)

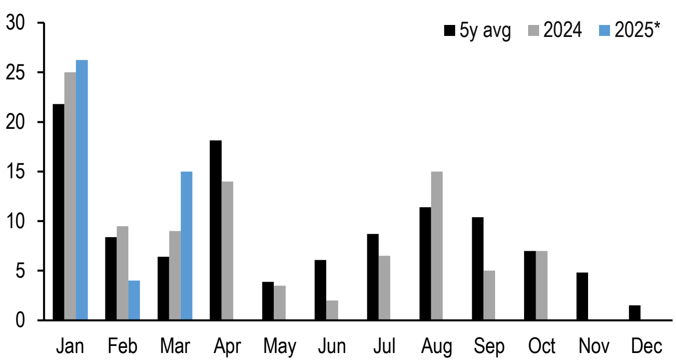


Source: J.P. Morgan

Turning to supply, gross bellwether issuance totalled $15bn in March for the six issuers we cover. In terms of maturity composition, issuance remains heavily concentrated in the 3- and 5-year maturity points, which has further shortened the average WAM to 5.1 years (**Figure 48**). Subscription levels have remained relatively constant from February at 2.14x, but still below the strong 3.3x seen at the beginning of the year. The amount of issuance stands in contrast with prior year's averages, wherein March is a relatively muted month for supply (**Figure 49**). Looking ahead, April tends to be the second strongest month for gross supply. While the strong pace of issuance to start the year could dampen this seasonal, we note that the issuers we track still have significant funding needs to meet. Indeed the six issuers we cover are roughly 47% funded this year, with the IFC with the highest proportion at 57% (**Figure 50**).

Figure 49: Gross issuance totalled $15bn March, more than twice the average pace of the last 5 years...

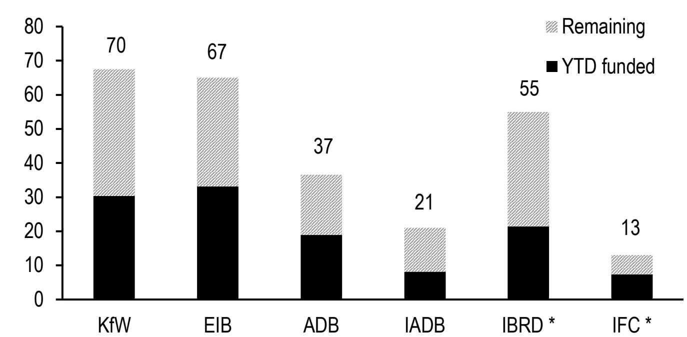
Gross $-denominated SSA bellwether issuance by month; $bn



Source: J.P. Morgan

Figure 50: ...but major issuers still face significant funding needs for the remainder of the year

2025 funding targets for top SSA issuers, alongside the proportion funded YTD and remaining funding needs*; $bn



*Includes all currencies. IBRD and IFC defined as FY25 from Jul'24-Jun'25
Source: Dealogic, J.P. Morgan

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Agency MBS

RegrETs, I've had a few

- **Mortgages initially struggled in the wake of the tariff announcement, but clawed back some of their spread widening as the day went on; the uptick in implied vol meant some underperformance vs. rates, but all in all mortgages held in reasonably well**
- **While corporates have underperformed, they've mostly just erased their 2024 tightening; it's likely too early for money managers to make their big shift away from MBS back to IGs**
- **Into a recession, however, IG spread widening would likely encourage that rotation; given that money managers are the marginal MBS buyer, that could widen spreads, but increased bank demand might also serve as a buffer**
- **When MSR moves from slow servicers to fast servicers, there's the expectation that speeds will start to look more like the latter's; when the transfer is large enough, cohort average speeds can increase, potentially allowing the faster servicers to increase their absolute speeds while maintaining the same ratio vs. cohort**
- **We compare Agency CMO to Agency CMBS floaters, using an even-OAS framework to derive an "uncapped" DM for the CMOs. Using this framework, we find that CMO floater spreads have been tracking ACMBS spreads quite closely, though each product presents unique risks that we explore**
- **ET issuance has been a steady $1bn a month; we examine the story and in particular the large roll played by delinquencies and buyout expectations**
- **Our model might be optimistic on lower coupon buyouts, but these pools still offer plenty of OAS pick to the TBA after adjusting for lower buyouts**

Views

- **With recession risks rising, mortgages should serve as a relative safe haven, but won't be entirely immune**

Mortgages initially struggled in the wake of the Liberation Day tariff announcement, but clawed back much of their spread widening as Thursday progressed. The uptick in implied vol meant some additional slippage vs. pure duration hedges, but all in all mortgages held in reasonably well. With many market participants expecting higher recession odds on the back of the stiffer than expected level of tariffs, it's natural that corporates should come under pressure. However, the scope of the move is still relatively muted in the context of the tightening that's occurred for risky assets over the past year (see Figure 52). Production coupon mortgages still out-yield similar duration corporates, and overall it seems like the balance of risks may be tilting more in favor of taking interest rate vol risk vs. recession risk. As such, we think it will probably take a larger move on the IG side before money managers make the big rotation trade (Figure 6).

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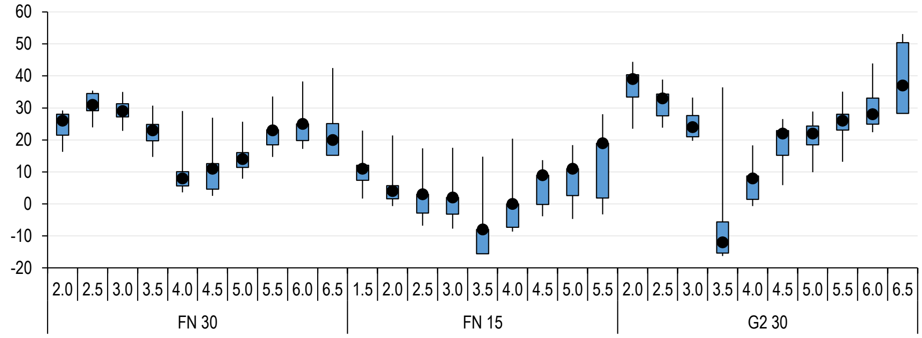
Figure 51: Mortgages struggled in the wake of the Liberation Day tariff announcement, but clawed back much of the spread widening as Thursday progressed

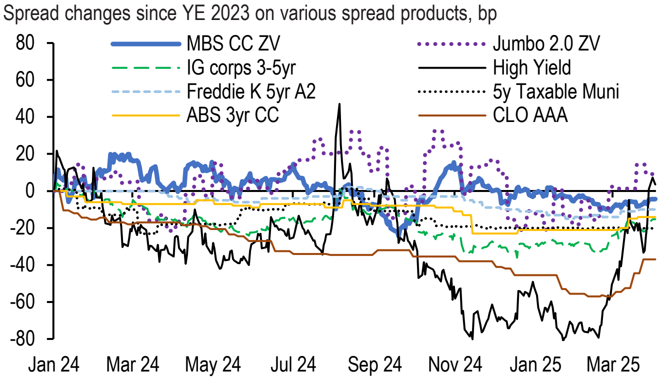
Current, 1m, and 6m Treasury OAS ranges across the TBA stack. The black dots represent the current OAS, the blue boxes represent the 1m range, and the black lines represent the 6m range (as of 4/3/2025)



Source: J.P. Morgan

Figure 52: While credit spreads have recently underperformed the relative stability of mortgages...

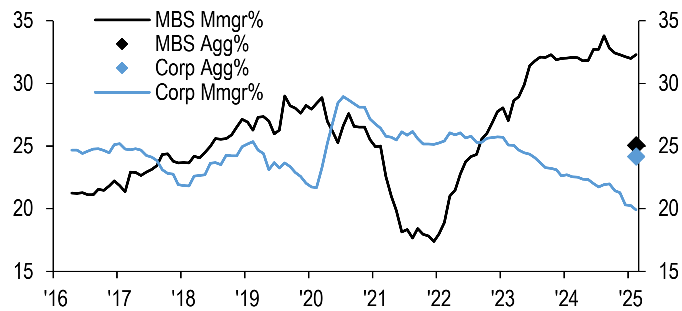
Spread changes since YE 2023 on various spread products, bp



Source: J.P. Morgan

Figure 53: ...the move isn't large enough to spark the great rotation out of MBS and into IGs

MBS and Corp weightings of active money managers vs the Bloomberg Agg, %



Source: J.P. Morgan, Bloomberg Finance L.P.

Nonetheless, that's one risk for mortgages in the medium term. While our IG strategists aren't anticipating a sharp move wider, a recession would be problematic on a few dimensions. First, of course, would be the credit impulse and demand for wider spreads as downgrade risks rise. Second, a significant drop in yields could be expected to be accompanied by wider spreads, all else equal, simply because so much of the IG buyer base is yield focused. Our IG strategists think that in 'normal' recession (i.e. not the GFC or COVID), our JULI index could widen out to 180bp (from today's ~115bp level). In that scenario, it seems inevitable that money managers would reduce their mortgage overweights in favor of corporate credit.

Given that money managers form the crux of MBS demand currently, on its face this is a worrisome prospect. However, we'd also note that in that world, banks would face weaker loan growth and would need to defend NII with something spready (probably MBS). Their demand could help buffer money manager selling and an uptick in supply from the concurrent rally.

More locally, the sharp rally in rates reignited some prepayment fears in the higher coupons, and should translate to an uptick in application volume (to be felt in realized speeds later this month or early May). Although 10yr yields have fallen to levels not seen since October

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2024, we haven't yet seen quite the same decline in primary rates—and both remain well higher than the September 2024 lows that sparked a significant s-curve steepening.

We've also had a number of questions on originator/servicer consolidation this week. As we've regularly highlighted in our MSR transfer tracker (page 3 of our MSR & IO Monthly Chartbook), over the past few years there have been some originators who tend to sell MSR and others who tend to acquire it. One model that seems to work is for a highlight efficient originator to compete for market share on the origination front and then relatively quickly shed their MSR; this allows them to capture origination fees and develop touchpoints with a large base of at-the-money borrowers, setting up for a potential refi wave. Another model employed by other institutions is to focus on the servicing aspect of the business. Servicing is a high fixed cost, relatively low marginal cost business (assuming delinquencies remain low). Adding on more MSR can reduce the average cost of servicing per loan, thus improving the profitability of the servicing function.

There are some drawbacks to each model, of course. The fast originator who sells off their MSR may face less attractive pricing unless they dial back their targeting efforts on the transferred servicing. And the mortgage bank focused primarily on servicing may find itself with a sub-standard recapture rate into a rally, forcing it to employ more costly hedging strategies. MSR also might be less valuable to a servicer without substantive origination capacity if it isn't able to offer as many products to the borrowers that it keeps close contact with.

Most independent mortgage banks aren't exclusively one or the other of the monoline entities that we've described here; they sit at different points on the spectrum between the two business models. But when the industry lacks the massive amount of refi fodder that it had from 2019-2021, it behooves a player to be good in at least one of these dimensions.

Being good in both can bring its own rewards; if an efficient originator can also pick up more servicing, it gains a larger base of borrowers to target. At the first order, this direction of transfer presents an unhedgeable risk to MBS investors; if you thought you had a slow bank pool and then it turns out that a fast non-bank will be picking through your borrowers, there's unfortunately not much to do.

But there's a second order effect to this type of transfer. Some 'fast' servicers are so efficient that they actually throttle their speeds each month to stay in the good graces of the GSEs and spec pool buyers; they'll limit their speeds to a certain percentage faster than the cohort as a whole. But when a slow-to-fast transfer is large enough that it has the potential to pull up the cohort average, you actually exacerbate the prepayment impact. The 'fast' servicer can now increase their absolute rate of prepayments because they increasingly define the 'cohort'—in the extreme version of the thought experiment, a single servicer would never have to worry about being "too fast relative to cohort" because their speed would be the cohort speed.

This week, we look at relative value between CMO floaters and aCMBS floaters, with a focus on the cap value on the CMO side. We also explore the high redefault rates driving most of the speeds on ET pools. Due to J.P. Morgan Securities LLC and/or its affiliates acting as financial advisor to Rocket Companies, Inc. (NYSE: RKT) in connection with the acquisition of Mr. Cooper Group Inc. (NASDAQ: COOP) in an all-stock transaction for $9.4 billion in equity value as announced on 03/31/2025, we can't comment on any specifics of that transaction, but provide data on the prepayment history of the two entities.

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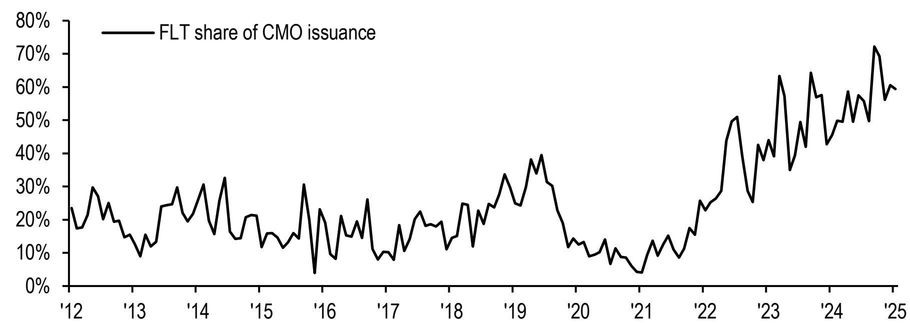
Comparing "uncapped" CMOs versus Agency CMBS floaters

With floaters continuing to dominate CMO issuance, we evaluate their relative value versus similar spreads products (Figure 54). Cap risk constitutes the primary risk among Agency MBS floaters, so it can be tricky to compare them to other sectors solely on DM. For this analysis, we use an even-OAS framework to "uncap" some conventional floaters, and then derive the new DM at the higher "uncapped" price. We find that CMO floater spreads have been tracking ACMBS floater spreads quite closely, though each presents unique risks that we explore.

Figure 54: Floaters account for a historic share of CMO issuance

Floater share of total monthly Agency MBS CMO issuance

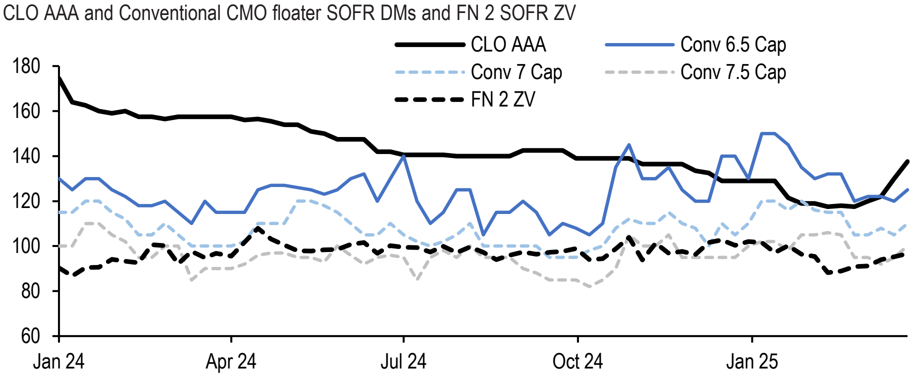


Source: J.P. Morgan, Bloomberg Finance L.P., eMBS

Frequent RV comparisons for MBS floaters include lower coupon mortgages and CLO AAAs. The former comparison stems from the synthetic floaters created off of discount MBS, where banks can effectively earn the SOFR ZV of the PT as their DM on an uncapped floater through portfolio-layer hedging. CLO AAAs are a natural comparison as the prototypical floater in the securitized space, providing uncapped exposure at the expense of corporate credit risk. CLO AAAs tightened inside of 6.5 cap DMs earlier this year before widening out moderately (Figure 55).

Figure 55: CLO AAAs tightened inside of 6.5 cap DMs earlier this year before widening out moderately

CLO AAA and Conventional CMO floater SOFR DMs and FN 2 SOFR ZV



Source: J.P. Morgan

However, any buyer of CMO floaters is paid some additional DM to take on cap risk; we're often asked by investors to quantify the value of that cap using our OAS model. The value isn't purely that of a rate cap, given the amortizing nature of the MBS and the potential for collateral extension into a selloff where SOFR hits the cap. One convenient way to quote the value of this cap is to say "what would the DM on this bond be if there was no cap?"

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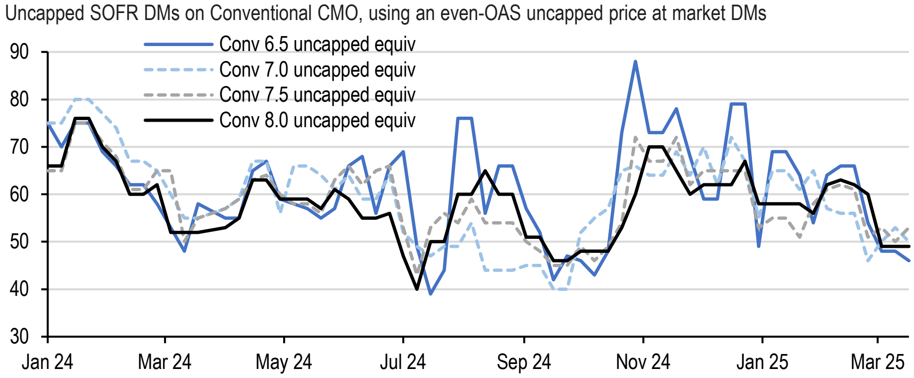
For this process, we run 6.5-8 cap floaters at market DMs and output the uncapped price in our model. The model generates this by removing the cap on the floater, then rerunning the uncapped bond at the same OAS that the original capped bond offered at today's market price (DM). Then, we back out new DMs at this higher price, which we define as the uncapped DM and show in Figure 56. The uncapped DMs consistently trade quite closely between the various caps, indicating that the market polices the fair value among caps quite well. This makes sense—while not all investors care about the OAS on floaters, many will at least check it, and structuring desks obviously need to consider it in the context of the other parts of the deal.

The hit to DM from uncapping the floater only addresses the negative convexity associated with hitting the cap: it does not change the entirety of the prepayment risk inherent to the underlying collateral behind CMO floaters. For example, these floaters still suffer from reinvestment risk into rate rallies, where investors would need to reinvest their prepays into a lower DM bond (assuming they wanted to maintain their absolute cap). Curve pivots can also prove detrimental to the amount of DM the investor collects over time, with the coupon pegged to the short end, but prepayments tied to points further out the curve.

Figure 56: Despite the DM focus, the market polices the fair value among caps quite well due to creation considerations

Uncapped SOFR DMs on Conventional CMO, using an even-OAS uncapped price at market DMs



Source: J.P. Morgan

With the risks of a theoretical uncapped Agency CMO floater in mind, we take a look at a comparable product in Agency CMBS floaters. Both are insulated from credit risk and satisfy similar LCR and risk weight requirements for banks, due to their GSE guarantee. While Ginnie CMO floaters offer the best treatment, there isn't a similar product in Ginnie CMBS, so we focus on conventionals. The main difference comes down to prepayments. As discussed earlier, even an uncapped Agency CMO floater would present a plethora of convexity issues related to prepays, but these prepays are fundamentally modelable. The underlying collateral for Agency CMBS floaters are themselves floating-rate loans, with a different set of prepayment drivers.

Agency CMBS floating loans are often used as a flexible financing option, and so prepays typically ramp up quickly after origination. For example, Freddie 10yr K floaters are generally issued at 10yr maturities, but effective WAL has empirically been 3-4yrs. This implies a historical CPR of 25c. In Figure 57, we show the prepay ramp among 2017-2020 vintage and 2021-2024 vintage Freddie K 10yr floaters. Across both cohorts, speeds rise after 1yr of seasoning, and the 2017-2020 vintage deals indicate that the speeds remain fast until the collateral dissipates. Naturally, this presents a significant reinvestment risk for investors. With the unique risks implicit to Agency CMO and Agency CMBS floaters in mind, we

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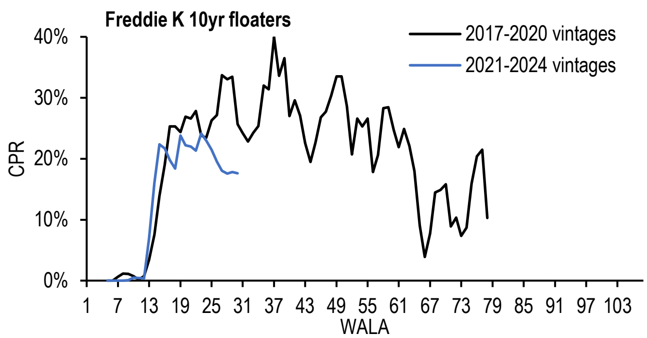
show DMs on a theoretical uncapped CMO floater (at fair value/even OAS to a 7 cap floater) and on Freddie K 10yr floaters in Figure 58. Spreads have traded fairly in line since the start of 2024, implying that investors view each product's idiosyncratic prepayment risk as being somewhat equivalent in magnitude.

Figure 57: Speeds on Freddie K floaters dramatically rise after 1 year of seasoning, presenting a significant reinvestment risk for investors...

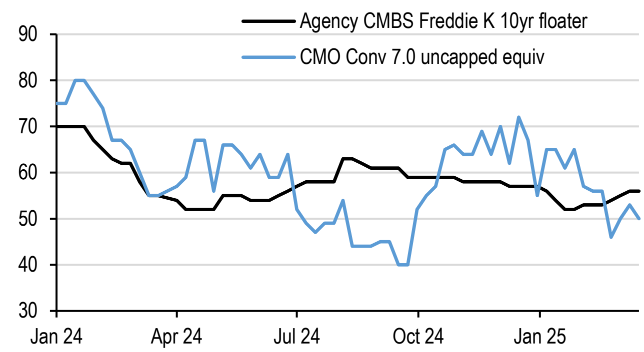
Speed ramp among 2017-2020 vintage and 2021-2024 vintage Freddie K 10yr floaters



Source: J.P. Morgan

Figure 58: ... despite their distinct risks, "uncapped" DMs on CMOs and Freddie K floaters have traded fairly in line

Uncapped SOFR DM on Conventional CMO 7 cap floaters and SOFR DM on Agency CMBS Freddie K 10yr floaters



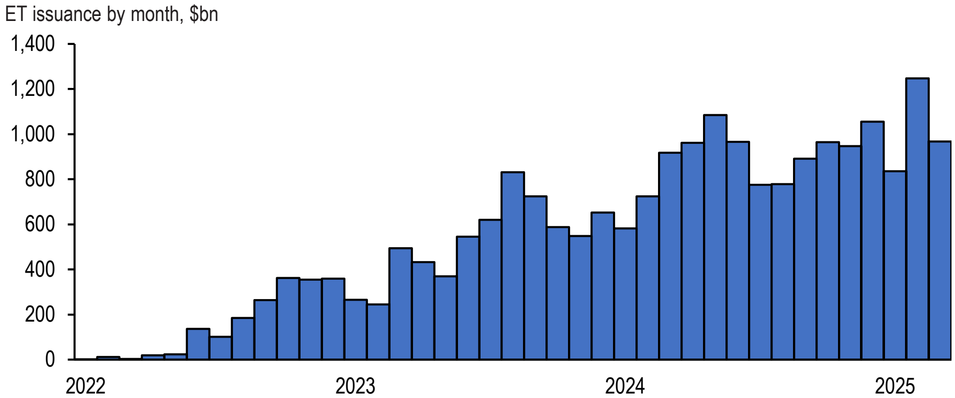
Source: J.P. Morgan

RegrETs, I've had a few

As we discussed in our review of Ginnie delinquencies a few weeks ago, for an engaged FHA borrower, under the Biden administration's workout waterfall, there's currently no clear path to foreclosure—they can just keep getting modified. Presumably that will change under the new administration, but it's meant that there are a decent number of borrowers getting mods with WACs close to the current coupon. Many of these are 40yr term, which end up getting pooled into Ginnie custom ETs (see Figure 59 for issuance stats). These borrowers tend to redefault at fairly high rates, which results in sizeable delinquencies and a decent run rate of buyouts. At the same time, these borrowers barely react to rate incentive from a voluntary prepays. At current valuations, ET collateral appears to offer large pickups in ZV and OAS, with most of the value coming from higher baseline levels of redefault speeds. The OAS pickup remains substantial across the stack even when lowering our models buyout multiplier.

Figure 59: A solid $1bn a month of ETs are getting issued at present

ET issuance by month, $bn



Source: J.P. Morgan, Ginnie Mae

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There are only around $14.8bn ETs outstanding, as shown in Figure 60. They're mostly FHA borrowers (80+% of most months of issuance), but the other at issuance stats probably don't tell us that much—the FICOs and LTVs are stale, left over from the original pre-modification loan. Instead, we have to go off of the empirical speeds, which have been fairly significant as measured over the past few months. Nearly all of these speeds come from involuntary prints, and the backlog of yet-to-be-removed delinquencies is significant (20-40%) across the stack in the 2023 and 2024 vintages.

Figure 60: The full picture of ETs made over the past few years by coupon along with recent speeds and delinquencies

Key stats on outstanding ET pools by coupon

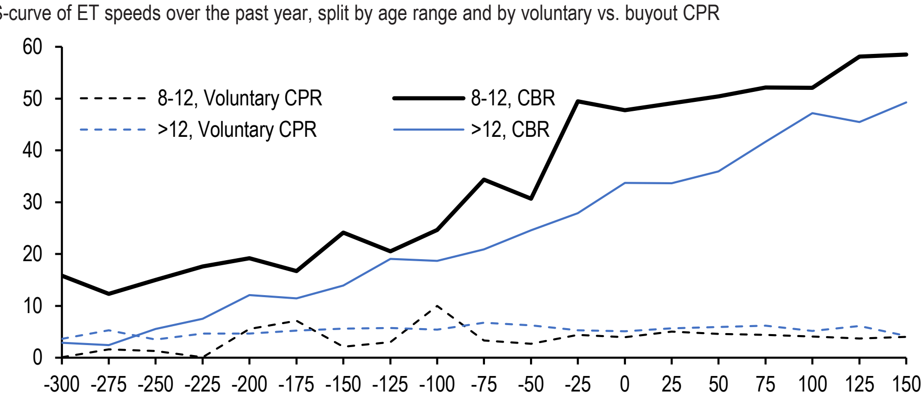
Stats	Issue Year	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Cbal ($mm)	2025						426	989	525	
	2024					283	1,466	3,188	2,784	324
	2023	104	104	125	274	216	600	1,091	567	102
	2022	125			255	297				
3mCPR	2024					11	30	35	40	52
	2023	8	18	16	23	26	29	37	46	54
	2022	4			21	21				
3mCBR	2024					9	28	33	38	49
	2023	5	15	12	19	22	26	33	42	50
	2022	1			16	17				
3mVPR	2024					2	3	3	4	7
	2023	4	4	5	4	4	4	6	7	8
	2022	3			6	4				
%90+	2024					27	30	35	40	36
	2023	26	32	26	22	23	23	26	34	40
	2022	17			18	19				

Source: J.P. Morgan, Ginnie Mae

Of course, the last three months of voluntary speeds have been rather humdrum, but even an s-curve fit over the prior *year* of observations shows very little traditional rate sensitivity on the voluntary side (Figure 61). There is, however, a pronounced *involuntary* relationship with rates as seen in the CBR s-curves.

Figure 61: The near term s-curve shows rate sensitivity to involuntary speeds in ETs with a relatively small amount of voluntary prepays

S-curve of ET speeds over the past year, split by age range and by voluntary vs. buyout CPR



Source: J.P. Morgan, Ginnie Mae

This is driven by a few factors. The first is that higher coupon ET mods seem to redefault at a higher rate—likely because the payment is just higher. The second is related to funding. Servicers have the right, but not the obligation, to buy out 90+ days delinquent loans from Ginnie pools. They tend to more quickly buy out higher coupon Ginnie delinquencies

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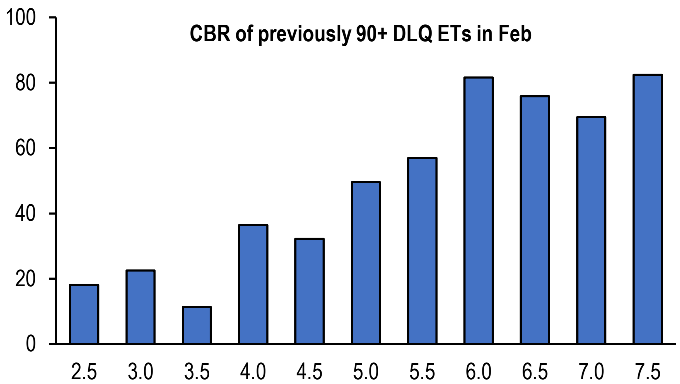
because advancing the coupon looks relatively attractive than borrowing to fund the buyout (let's say at SOFR+150-300). Figure 62 shows this dynamic in the latest speed report, and it has generally held true during the existence of ET pools in the higher rate environment (Figure 63) For lower coupons, servicers probably wait until the borrower actually gets a new mod or moves to foreclosure, since the coupon is cheaper than alternative funding. This introduces some modest negative convexity in the near term, but at the same time, there aren't many options for these deeply delinquent borrowers that don't result in eventual removal of these loans from the pools.

Figure 62: As one would expect from the s-curve above, the buyout rates for seriously delinquent ETs are much higher up the stack

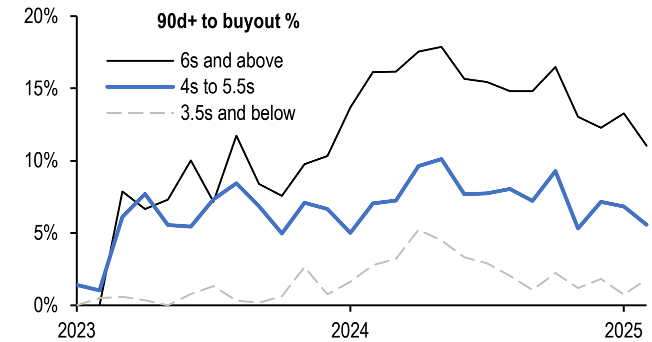
Buyout rates for seriously delinquent ET loans by coupon in Feb. 25



Source: J.P. Morgan, Ginnie Mae

Figure 63: This relationship has held over the past few years

Time serious of buyouts for seriously delinquent loans in ETs

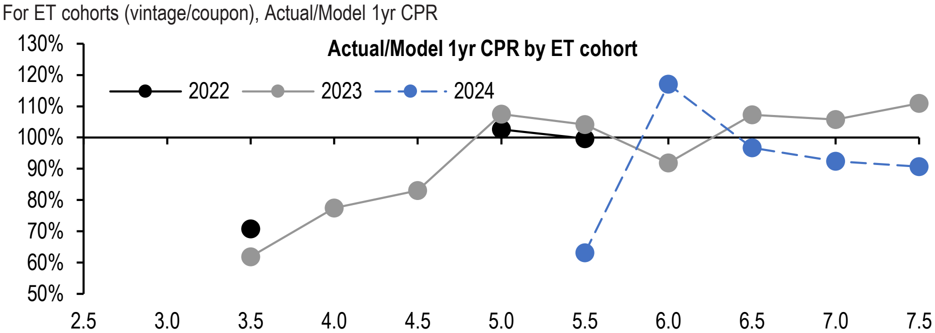


Source: J.P. Morgan, Ginnie Mae

Looking at our model results with the overall ET cohorts, it has generally performed close on 5s and above while overshooting on lower coupons (Figure 64). As discussed above, much of that has to do with the timing of buyouts; the model will expect the backlog of seriously delinquent loans to get bought out, but its happening at a slower pace in reality.

Figure 64: The model has been too fast for lower coupons looking backward, as it expects more conversion from DLQ to buyout, while being close to correct on 5s and above

For ET cohorts (vintage/coupon), Actual/Model 1yr CPR



Source: J.P. Morgan

Figure 65 shows the current analytics in our model using 2025 vintage ETs. The main departure from the TBA comes from the blistering pace of buyouts expected by the model, which adds significant spread down the stack. The Z spread difference isn't as great in production coupons, but in that case, the better expected convexity of ETs adds significant OAS. A lot of the valuation comes down to modelling the redefaults, but so far, they have stayed at a high level. Beyond the convexity from the servicer's timing optionality, there could also be a drop off in CBR if rates rally enough to allow for lower rate mods, potentially hurting

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production coupon ETs. A lot of this analysis comes down to how reasonable we think those longer term resting rates are for buyouts.

Figure 65: Current valuations for ETs in the model along with a comparison to multis

Model results for 2025 vintage ETs, as of 4/1

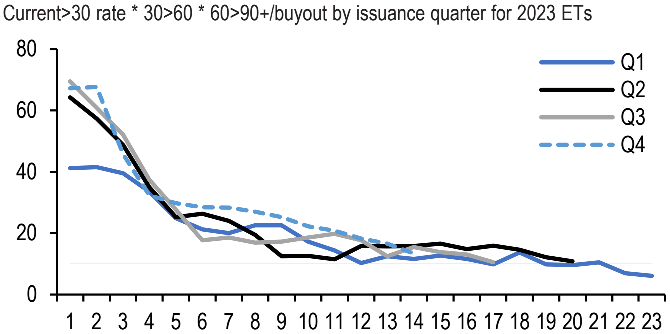
	Tsy Z Spread		Option Cost		Tsy OAS			Life CPR	
Coupon	ET	Multi	ET	Multi	ET	Multi	Difference	ET	Multi
3.0	137	44	7	22	130	23	107	13	7
3.5	136	21	13	32	124	-12	135	15	6
4.0	142	50	18	43	124	7	117	16	6
4.5	148	79	19	57	129	22	108	18	8
5.0	123	96	28	74	95	22	73	16	10
5.5	125	117	44	93	81	24	57	17	13
6.0	131	121	30	96	101	25	76	22	21
6.5	133	113	26	85	107	28	78	28	28
7.0	158	107	22	64	136	44	93	28	33

Source: J.P. Morgan

Figure 66 shows the roll rate from current all the way to buyout/90d+ for ETs in the 2023 vintage by issuance date and age. The resting rate appears to be near 10% after the initial spike, which gives us another datapoint for judging long term speeds, and implies the discount valuations might be too generous in the current model framework. Figure 67 gives a range of OAS/OAS picks on the ETs across the stack when changing the model's expectation for buyouts. The lower coupons still pick up a fair amount of spread at half the rate of buyouts, giving some buffer even if the roll rates drop off to the extent shown in the chart on the left.

Figure 66: After an initial spike, the pathway from current to 90+/buyout has settled near 10% for the 2023 vintage of ETs

Current>30 rate * 30>60 * 60>90+/buyout by issuance quarter for 2023 ETs



Source: J.P. Morgan, Ginnie Mae

Figure 67: Adjusting the model for different buyout expectations (50%/100%/150%)

Model results for 2025 vintage ETs, as of 4/1

	ET OAS			ET OAS pick			ET Life CPR		
Cpn	0.5* CBR	Current	1.5* CBR	0.5* CBR	Current	1.5* CBR	0.5* CBR	Current	1.5* CBR
3.0	55	130	207	33	107	184	9	13	17
3.5	64	124	187	76	135	199	10	15	19
4.0	75	124	175	68	117	168	11	16	21
4.5	85	129	172	64	108	151	12	18	25
5.0	76	95	114	54	73	92	11	16	21
5.5	75	81	87	52	57	63	12	17	23
6.0	117	101	84	92	76	59	13	22	33
6.5	140	107	70	112	78	41	15	28	41
7.0	178	136	89	134	93	45	16	28	41

Source: J.P. Morgan

I'm not the man they think I am at home

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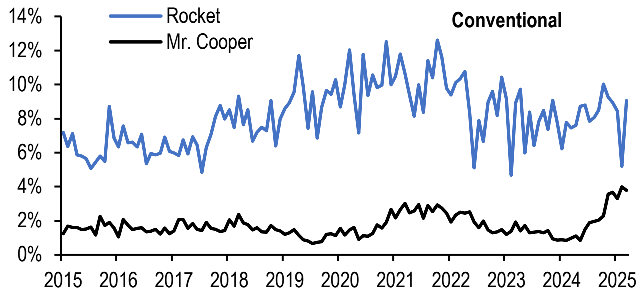
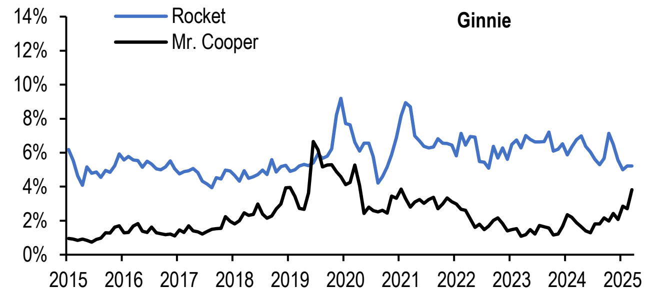
Figure 68: Conventional issuance share, %



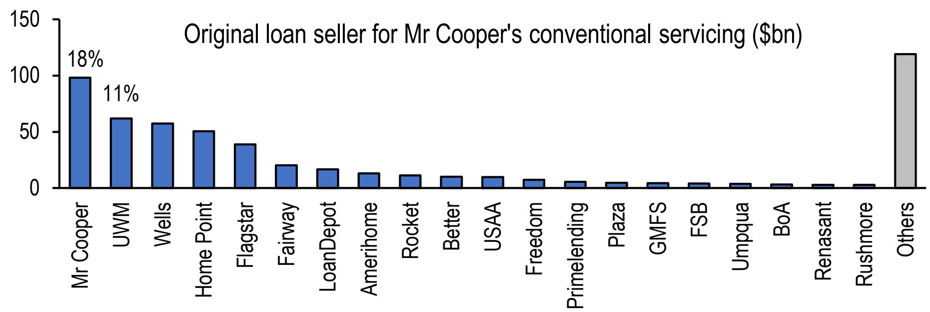
Source: J.P. Morgan, Fannie Mae, Freddie Mac

Figure 69: Ginnie issuance share, %



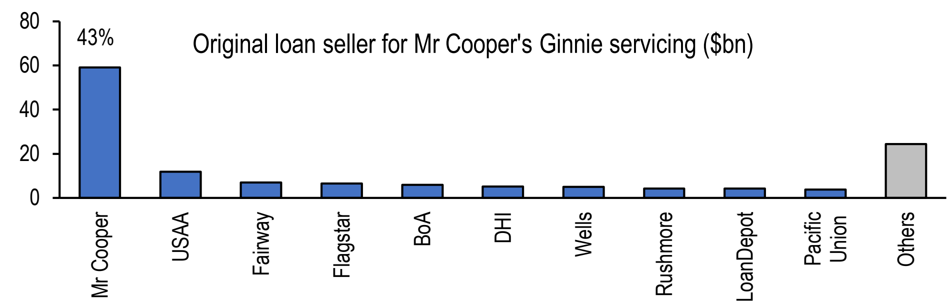
Source: J.P. Morgan, Ginnie Mae

Figure 70: Mr. Cooper conventional servicing as of Feb. 2025, split by original seller, $bn



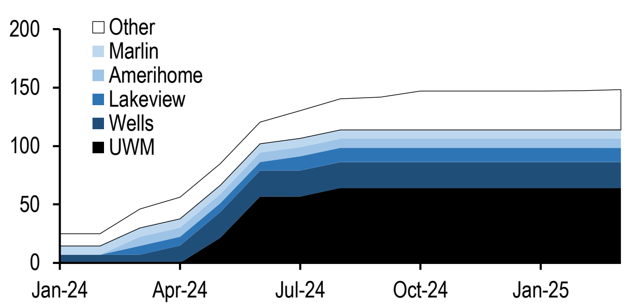
Source: J.P. Morgan, Fannie Mae, Freddie Mac

Figure 71: Mr. Cooper Ginnie servicing as of Feb. 2025, split by original seller, $bn



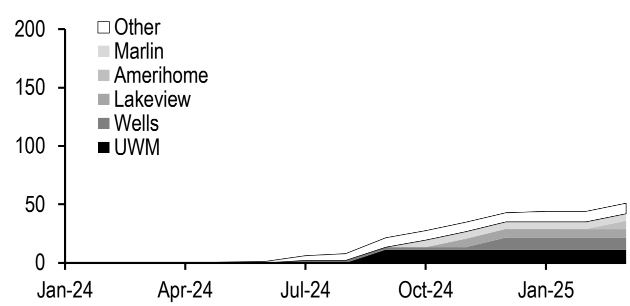
Source: J.P. Morgan, Ginnie Mae

Figure 72: Cumulative MSR transfers to Mr. Cooper (Nationstar) from Jan. 2024 onwards by the top 5 "transfer-from" servicers and others, $bn



Source: J.P. Morgan, Fannie Mae, Freddie Mac

Figure 73: Cumulative MSR transfers to Rocket from Jan. 2024 onwards by the top 5 "transfer-from" servicers and others, $bn



Source: J.P. Morgan, Ginnie Mae

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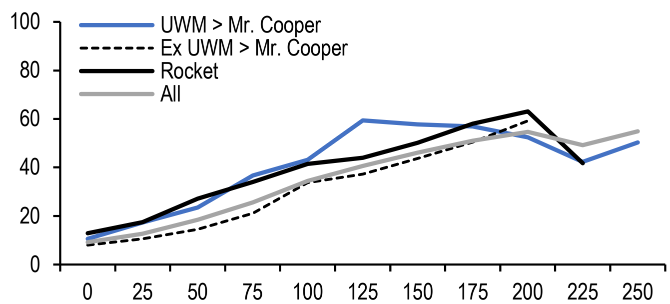
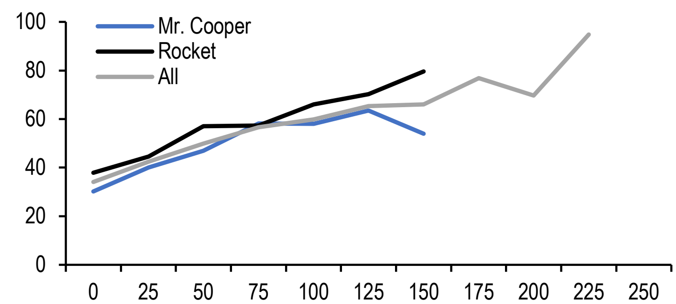
Figure 74: Non-spec 7-36 WALA UM 30yr 1 mo. CPRs observed Jul.-Dec. 2024



Source: J.P. Morgan, Fannie Mae, Freddie Mac

Figure 75: Non-spec 7-36 WALA G2 30yr 1 mo. CPRs observed Jul.-Dec. 2024



Source: J.P. Morgan, Ginnie Mae

Figure 76: Top 10 MSR transfer pairs by agency observed in 2024 and 2025, in descending order, $bn

Conv. 30yr					Ginnie 30yr				
Servicer	Bank / Non-bank	Curr. Bal ($bn)	WALA	Orig. WAC	Servicer	Bank / Non-bank	Curr. Bal ($bn)	WALA	Orig. WAC
Mr. Cooper	Non-bank	462	46	4.58	Freedom	Non-bank	373	40	3.92
Chase	Bank	450	54	4.16	Lakeview	Non-bank	359	47	4.27
Lakeview	Non-bank	327	33	4.91	Pennymac	Non-bank	285	42	4.06
Pennymac	Non-bank	307	38	4.30	Rithm	Non-bank	132	41	4.11
Rocket	Non-bank	305	40	4.38	Mr. Cooper	Non-bank	130	65	4.26
Rithm	Non-bank	295	53	4.25	Carrington	Non-bank	117	57	4.13
Wells	Bank	269	72	4.41	Rocket	Non-bank	111	38	3.94
Freedom	Non-bank	204	40	4.41	Planet	Non-bank	82	33	4.40
Onslow Bay	Non-bank	165	46	3.26	Wells	Bank	75	115	4.18
Two Harbors	Non-bank	160	53	3.84	US Bank	Bank	56	59	4.36
Bank		719	61	4.25	Bank		131	91	4.25
Non-bank		2,226	43	4.35	Non-bank		1,590	45	4.11

Source: J.P. Morgan, Fannie Mae, Freddie Mac, Ginnie Mae

Figure 77: 3mCPRs on Fannie and Freddie 30yr 2s-3s issued in 2020 and 2021, >250k lnsz

2s		2.5s		3s	
All	3.0	All	4.0	All	5.0
Rocket	3.4	Rocket	4.8	TH MSR	6.4
Rithm	3.2	Truist	4.3	Rocket	6.3
PNC	3.2	Pennymac	4.2	Pennymac	6.0
Lakeview	3.2	TH MSR	4.2	Rithm	5.7
Pennymac	3.1	MrCooper	4.1	Lakeview	5.6
TH MSR	3.1	Rithm	4.1	MrCooper	5.3
UWM	3.1	UWM	4.1	Truist	5.1
Wells	3.0	Fifth Third	4.1	CrossCountry	5.0
MrCooper	2.9	Freedom	4.0	Wells	4.5
Truist	2.9	Wells	4.0	PNC	4.5
US Bank	2.9	PNC	4.0	Freedom	4.4
Chase	2.9	Lakeview	3.8	Chase	4.3
Freedom	2.9	Onslow	3.7	US Bank	4.3
PHH	2.8	Chase	3.6	Fifth Third	4.2
Onslow	2.7	CrossCountry	3.6	Onslow	4.0

Source: J.P. Morgan, Fannie Mae, Freddie Mac

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Figure 78: Curr. balance of UWM UMBS origination and stats, including the share sold to Mr. Cooper

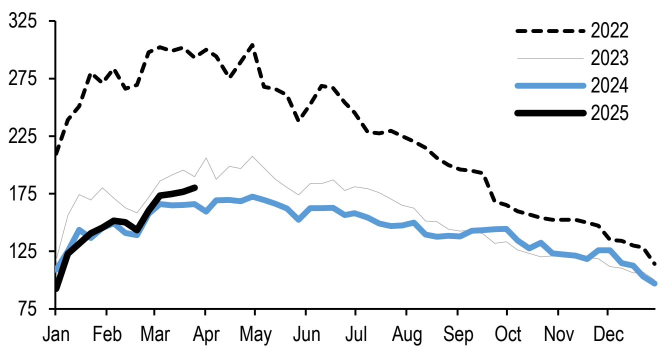
	Curr Bal ($bn)	Age	Curr. LTV	Curr. Insz	FICO	Share sold to Mr. Cooper
2.0	119.2	47	46	303.3	761	1%
2.5	49.9	45	51	283.3	744	0%
3.0	20.0	54	50	260.1	750	1%
3.5	12.7	60	50	243.9	747	8%
4.0	15.9	46	58	272.3	749	6%
4.5	19.7	30	67	320.8	753	14%
5.0	35.8	18	71	363.0	757	39%
5.5	39.9	14	74	365.7	757	42%
6.0	36.2	13	76	351.8	752	45%
6.5	18.9	14	77	330.0	741	31%
7.0	4.7	13	76	304.9	734	20%
7.5	1.0	14	76	289.6	729	38%
All	**383.8**	**35**	**58**	**310.2**	**754**	**16%**

Source: J.P. Morgan, Fannie Mae, Freddie Mac

Week in Review

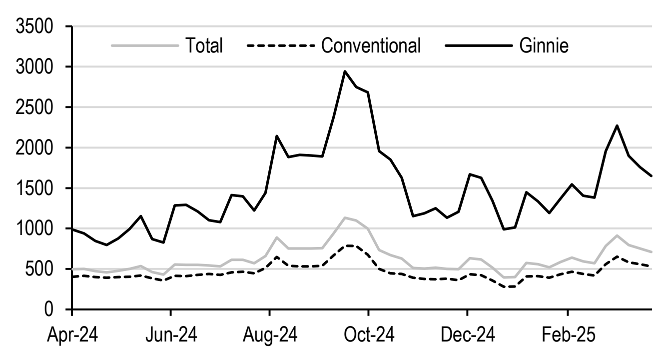
- **MBA Weekly Survey:** For the week ending March 28, the purchase application index rose 2.0% w/w and was 8.6% higher than year ago levels, while the refinance index fell 5.6% w/w and was 13.1% higher than the 3-month trailing level (daycount-adjusted, not seasonally-adjusted) (Figure 79 & Figure 80).
- **Freddie Enhanced Primary Survey:** For the week prior to April 3, 2025, 30-year conventional conforming fixed-rate mortgages averaged 6.64%, down 1bp from the previous week (Figure 81).
- **Primary dealer specified pool positions** rose to $466.1bn (+$4.7bn w/w) as-of close trading March 26. Including TBA positions of -$416.7bn, dealers were long $49.4bn (+$9.1bn w/w) pass-throughs. Other agency MBS holdings fell $1.1bn to $36.3bn.
- **Fixed-rate agency gross and net issuances were $73.8bn and $6.7bn, respectively, in February.** March gross supply currently stands at $75.9bn (Figure 82).
- **ICI Total Bond Long-term Mutual Fund and ETF Weekly Flows:** Inflows were -$1.0bn for the week of March 26 and +$11.1bn for the month leading up to March 26 (Figure 83).

Figure 79: MBA Purchase Index, calendar year overlay with daycount adjustments



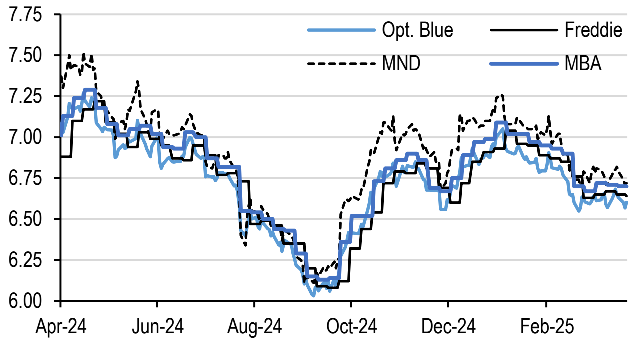
Source: J.P. Morgan, MBA

Figure 80: MBA Refi Indices, seasonally adjusted



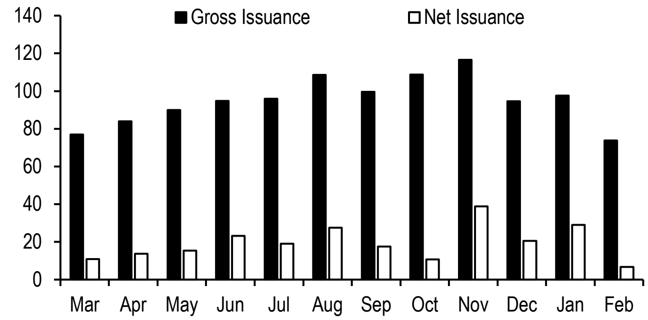
Source: J.P. Morgan, MBA

Figure 81: Primary mortgage rates, %



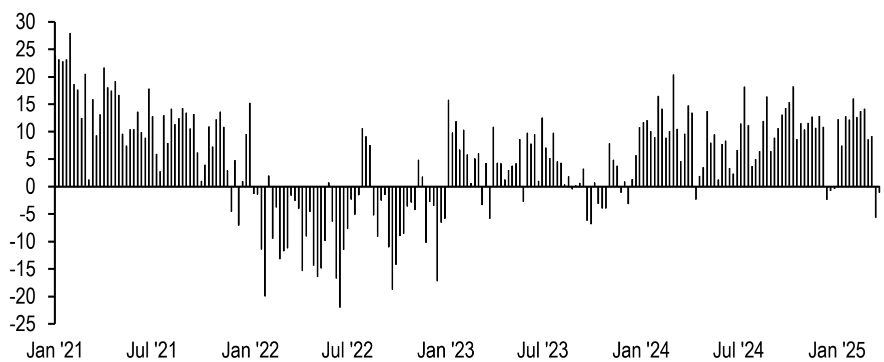
Source: J.P. Morgan, Optimal Blue, Freddie Mac, Mortgage News Daily, MBA

Figure 82: Gross and net fixed-rate MBS monthly issuance, $bn



Source: J.P. Morgan

Figure 83: ICI Total Bond Long-term Mutual Fund and ETF Weekly Flows, $bn



Source: J.P. Morgan, ICI

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RMBS Credit Commentary

Hello Vietnam

- **As tariff concerns spread through markets, increased recession risk versus inflationary pressure confound us all. The current chain reaction across sectors is for corporates to lead the widening ahead of agency MBS**
- **While shorter-duration non-agency assets like CES/HELOC, 2.0 FCF, and non-QM AAA/AA spreads may have room to leak wider, this is the segment that is most likely to attract the most RMBS investors**
- **There is not much appetite to add risk down the capital structure, but as spreads potentially widen along with HY corps, we should see attractive entry points once again**
- **Specific duration views will probably be expressed in more liquid sectors like treasuries or agency MBS and there are certainly ways to lean into duration with LCF CMOs. Hide out in shorter duration or go long duration and sell spread risk? These latter is not for the faint of heart**
- **A growing number of insurance companies have been partnering with money managers to invest in non-agency RMBS**
- **Insurance holdings of non-agency RMBS have increased each year across five of the life insurers with the largest holdings of mortgage loans that we looked at, with particularly large jumps in 2022-24 and in non-QM**
- **Most of these holdings are rated NAIC 1 or 2, and over half are rated AA and below as insurers balance risk-based capital and yield**
- **In our view, a slowing economy from tariffs could dampen insurance demand if it results in either a rise in delinquencies and increased capital requirements, or a slowdown in annuity sales**

Figure 84: RMBS credit issuance to date...

Issuance $mn	2024 FY	2024 YTD	2025 YTD
Jumbo 2.0	26,940	6,293	7,785
Agency Investor	6,070	1,063	2,759
CRT	7,418	2,456	2,671
Rental	8,672	2,198	2,255
RPL	19,704	3,663	2,001
NPL	6,688	1,147	2,176
Non-QM	46,605	11,590	14,488
Seasoned CRT	999	467	661
HELOC/CES	15,252	2,812	5,528
Other	21,385	4,892	4,100
Total	159,731	36,580	44,424

Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 85: ...and spreads

Spreads (bp)	Current	Δ 1 wk	Δ 1 mth	Δ YTD
Fannie CC 30YR	20	(2)	2	(4)
Jumbo PT	51	(10)	8	6
CRT M1	119	2	18	8
CRT M2(M1B)	171	12	30	(7)
CRT B1	198	3	19	(63)
CRT B2	386	0	14	(17)
Non-QM A1	145	2	25	15
Non-QM A2	160	-	20	10
Non-QM A3	175	(5)	10	15
Non-QM M1	220	(5)	5	-
Non-QM B1	320	-	40	(45)
SFR A	110	-	25	5
SFR B	130	-	15	(15)
SFR C	150	-	20	(30)
SFR D	200	-	25	-
HY Domestic	382	28	49	42
HG Domestic	97	6	7	6

Source: J.P. Morgan
Note: Includes our on-the-run indices. Jumbo is TOAS, non-QM and SFR are spread to treasuries. CRT is SOFR DM@10CPR. HG/HY are spread to treasuries.

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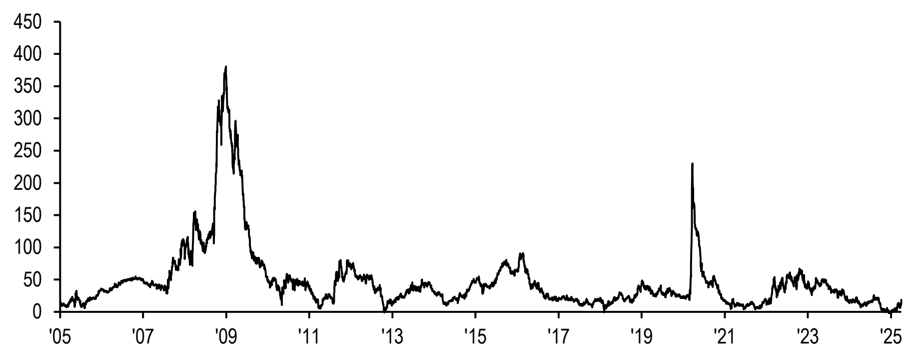
Market Commentary: Wait and see?

As tariff concerns spread through markets, increased recession risk versus inflationary pressure confound us all. The current chain reaction across sectors is for corporates to lead the widening ahead of agency MBS. Recall, money managers and insurance money have been steadily increasing their MBS vs. corporate allocations on the heels of historically tight corporate spreads. As corporates appear to be leading the charge wider, some money will inevitably follow which could put pressure on agency MBS. Post-tariff news, IG corporate cash bonds are about 10bp wider, with agency MBS 3-5bp wider. Jumbo AAA are about 8-15bp wider (or 4-8 ticks) as liquidity becomes an increased focus. We do not expect to see a lot of conviction in the market right now. While shorter duration non-agency assets like CES/HELOC, 2.0 FCF and non-QM AAA/AA spreads may have room to leak wider, this is the segment that is likely to attract the most RMBS investors. There is not much appetite to add risk down the capital structure, but as spreads potentially widen along with HY corps we should see attractive entry points once again. ABS may continue to draw attention and outperform. Specific duration views will probably be expressed in more liquid sectors like treasuries or agency MBS and there are certainly ways to lean into duration with LCF CMOs. It also seems like an attractive (and cheap) time to buy tail risk protection entering into a spread trade of long CDX.IG 10yr and short corporate cash 10yr (non-financials) as a hedge against a major blowout in spreads (Figure 86). The basis is already widening on current news. Hide out in shorter duration or go long duration and sell spread risk? These latter is not for the faint of heart.

Figure 86: Time for a tail risk hedge?

Long CDX.IG 10yr and short 10yr corporate cash JULI (ex-EM, ex-Fin)



Source: J.P. Morgan

Separately, this week, we held a series of client meetings with our agency MBS colleagues. In light of the tariffs announced on Tuesday, the investors we spoke with were focused on the outlook for home prices, credit performance, and spreads. In agency MBS, the primary focus was on the GSE conservatorship. While investors agreed with our benign outlook on home price growth, they were particularly interested in regions with a negative HPA forecast. We also discussed the impact of tariffs on new home sales. Investors were also worried about rising DQs in non-QM. They asked two key questions: 1. At what level of delinquencies will insurance money stop buying? 2. How high could non-QM delinquencies rise if we enter a recession? We continue to believe that while ultimate losses are likely to be low, there are risks to higher DQs. One, if DQ triggers are hit, the AA and A rated classes will be locked out, turning from pro-rata to sequential structure. Two, if foreclosures increase across the mortgage universe, timelines can extend and given higher WACs in recent vintages, severities can increase as DQ interest accrues. As economists revise recession probabilities higher, DQ are more and more likely to come up in conversations.

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In the news: Moody's upgraded multiple ratings across legacy and post-GFC RMBS deals this week. Post-GFC upgrades include seven bonds in 3 MI CRT deals and 42 bonds in 10 jumbo and agency investor deals. The upgrades are primarily due to deleveraging and strong collateral performance.

On Monday, Rocket announced that it would acquire mortgage servicer Mr. Cooper in a $9.4bn deal. Figure 87 shows the current post-GFC issued outstandings serviced by Mr. Cooper versus Rocket. The share of Mr. Cooper serviced loans is low across RMBS sectors.

Figure 87: The share of Mr. Cooper serviced loans is low across RMBS sectors

Current outstandings ($mn) by servicer and product. Only includes post-GFC issued deals

Product	Mr. Cooper	Rocket
RPL	1,404	131
Non-QM	831	16
Agency Investor	320	1,548
HELOC	34	6,194
Jumbo	-	9,122

Source: J.P. Morgan, CoreLogic

Insurance holdings in RMBS

We previously highlighted the steady increase in whole loan demand from insurance companies over the last few years. This week, we look closer at their participation in non-agency RMBS, much of which has occurred through partnerships with money managers. Bond-level participation can be accessed from company filings gathered through S&P's Capital IQ. We focus on five of the life insurers with the largest holdings of mortgage loans and RMBS: Corebridge Financial, MetLife, Global Atlantic, Northwestern Mutual and Athene (U.S. only, where applicable, and including all companies within the same corporate tree).

A growing number of insurance companies have been partnering with money managers to invest in the market. Their growing participation in mortgages has been fueled in part by an increase in cash from annuity sales. Many of these partnerships were made in 2022 and after, with money managers earning fees from managing billions of annuity premiums. For instance, Blackstone and BlackRock managed roughly $55bn and $83bn, respectively, of Corebridge's investment assets as of YE23, accounting for over 60% of totals. Athene became a part of Apollo in 2022, after the money manager directly managed a share of Athene's assets for years prior. Separately, asset manager KKR acquired a majority of Global Atlantic in 2021, and subsequently acquired the remaining share in 2024.

Figure 88 shows the actual cost of RMBS holdings by insurance companies since 2018. Holdings have increased each year across all the companies, with particularly large jumps in 2022-24. MetLife, for instance, added $2.3bn in mortgage credit holdings in 2024, many times over the $0.3bn in 2023.

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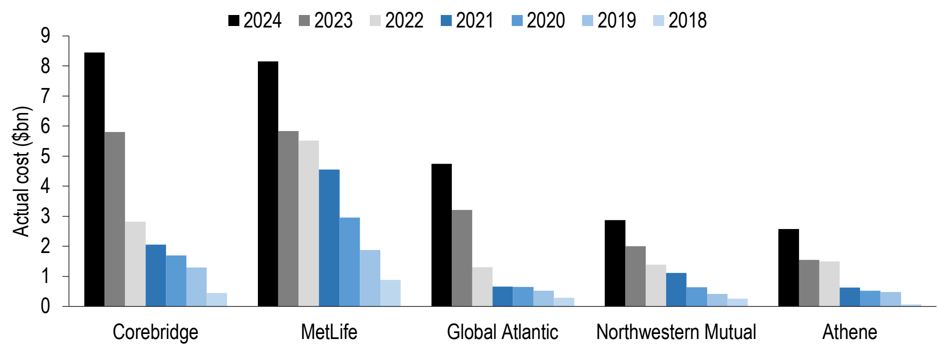
Figure 88: Holdings of non-agency RMBS have increased each year across all companies, with particularly large jumps in 2022-24

Actual cost ($bn) of non-agency RMBS holdings by insurance company for 2018-24

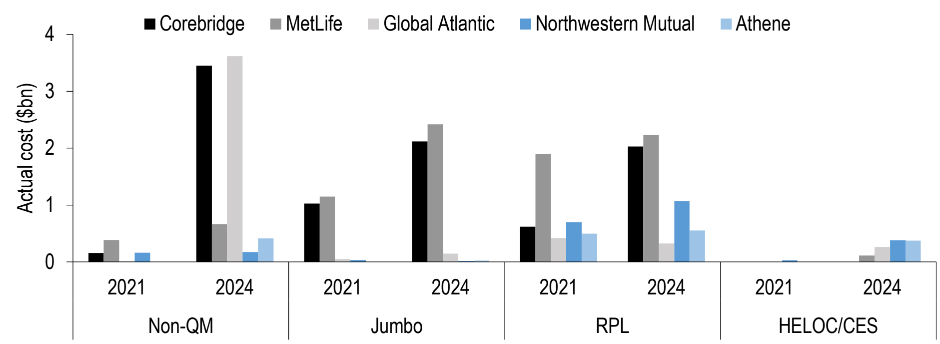


Source: J.P. Morgan, S&P

Holdings have increased across most mortgage credit products, particularly in non-QM. Participation is consistent across insurers in RPL, unlike jumbo where Corebridge and MetLife are some of the more significant players (Figure 89). The home equity securitized sector was dormant in 2021, but has since picked up in issuance, as reflected in the increase in insurance holdings in 2024.

Figure 89: Insurer holdings have particularly increased in non-QM

Actual cost ($bn) of non-agency RMBS holdings by product and insurance company, comparing 2024 to 2021



Source: J.P. Morgan, S&P

Across the five insurance entities, over 97% of RMBS holdings are rated NAIC 1 or 2 (Figure 90). More than 60% are NAIC 1. NAIC bond-level risk-based capital (RBC) increases exponentially as the NAIC rating increases, so it makes sense that insurance companies lean toward higher-rated, lower RBC securities to reduce capital costs. At the same time, they must balance RBC against yield. Figure 91 shows the distribution of holdings by initial bond rating for 2024. Over half of the holdings are rated AA and below (Corebridge is the exception at a conservative 42% AA-rated and below). In fact, Athene and Global Atlantic both have sizeable BBB-rated holdings, likely driven by the higher yield on slightly lower rated assets. The ratings distribution aligns with the initial bond ratings; insurance companies with more NAIC 2 rated bonds have more lower-rated holdings.

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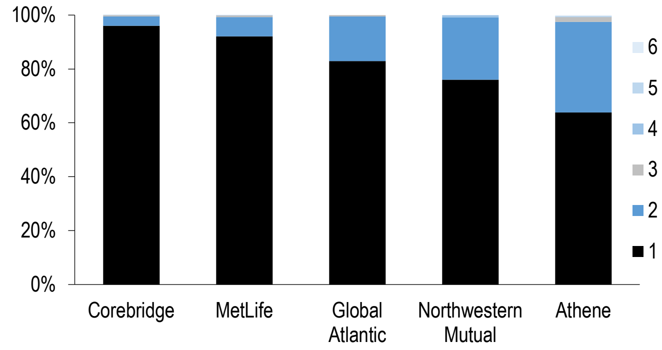
Figure 90: Over 97% of RMBS holdings are rated NAIC 1 or 2

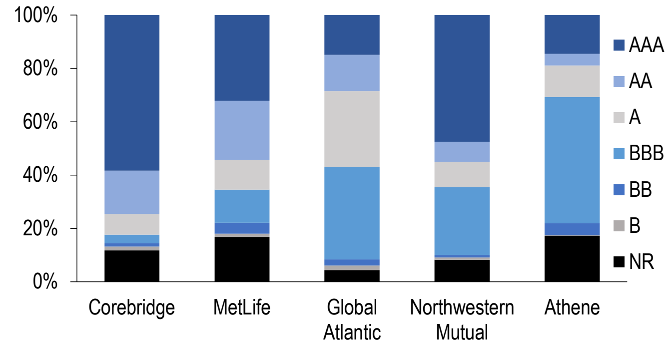
Share of non-agency RMBS holdings by NAIC rating and actual cost for 2024



Source: J.P. Morgan, S&P

Figure 91: Over half of the holdings are rated AA and below, with the exception of Corebridge

Share of non-agency RMBS holdings by initial bond rating and actual cost for 2024



Source: J.P. Morgan, S&P

We are often asked about scenarios where we think insurance demand for RMBS might slow down. We believe this could occur in one of two scenarios: either delinquencies continue to rise, leading to changes in NAIC ratings and increased capital requirements, and/or there is a slowdown in annuity sales. As tariffs push economists to raise recession probabilities, both scenarios appear more likely now than they have in recent years.

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CMBS Weekly

Rough seas

- Market sentiment took a big hit this week on tariff news with the S&P 500 selling off 4.8% on Thursday. 10yr conduit LCF AAA spreads were 8bp wider week-over-week to J+102 while single-As widened 64bp to J+260. Benchmark SASB bonds were broadly 6-10bp wider at the AAAs and 10-15bp wider at the single-As as of Thursday morning open. CMBX AAA18 and BBB-18 were 4bp and 53bp wider, respectively week-over-week as of Thursday's close. 10yr Freddie K A2s were about 4bp wider week-over-week to J+49
- It's still early to assess what the tariff impact will be as the market wrestles with the tariff brinkmanship. Nonetheless, the hit to sentiment is real and recession probabilities are rising. On Thursday evening, our global chief economist upgraded the probability of a global recession from 40% to 60%
- As for tariff impact on CMBS, it seems industrial warehouse deals and consumer-adjacent segments like hotels and retail are most exposed. If blanket tariffs are indeed implemented in some form, we have to imagine the supply chain disruption combined with reduced consumption will have a deleterious impact on industrial warehouse demand at least in the near-term. Hotel cashflows are the quickest to react into growth slowdowns while retail properties have some buffer given relatively long tenant leases. Nonetheless, a pullback in consumer spending is negative for both sectors
- The refi success rate for conduit CMBS loans maturing in 2025 (excluding defeased loans) fell to 60% during the March 2025 remit period, down from 67% in the prior month. The large month-over-month decrease in March was mostly due to retail and lodging loans
- During the March 2025 remit period, the serious delinquency rate for private label CMBS increased by about 43bp, reaching 5.8%. The biggest contributors to this month-over-month increase are two San Francisco multifamily loans sponsored by Maximus Real Estate Partners: *The Parkmerced* and *The Cove at Tiburon*
- In the conduit market, the serious delinquency rate also experienced a meaningful increase last month, reaching 6.8%. We continue to closely watch delinquencies in recent vintage multifamily conduit CMBS loans. In March, the serious delinquency rate for 2024 vintage multifamily loans increased 170bp to $2.6bn
- Additionally, in the conduit CMBS space, we continue to see increased levels of nonrecoverable determinations, reaching $6.95bn last month

Figure 92: CMBS spread summary

	This Week	Change		
		1w	1m	YTD
Conduit New Issue (UST)				
5yr Super-Senior LCF AAA	102	7	16	21
10yr Super-Senior LCF AAA	102	8	18	28
10yr AS	155	16	35	43
10yr AA	195	26	55	58
10yr A	260	64	80	90
Pre-COVID BBB-	525	68	120	65
10yr BBB-	545	69	122	65
10yr XA	160	5	35	41
Agency CMBS (UST)				
Freddie K A1 (10yr)	49	4	4	0
Freddie K A2 (10yr)	49	4	6	4
Freddie K Floater (10yr)	60	4	5	3
Freddie K X1	115	5	5	-5
Freddie K X3	280	10	5	-20
FRESB A5H	125	5	0	5
FRESB A10F	85	7	7	10
FNA DUS 10/9.5 TBA	56	7	5	9
FNA DUS SARM	60	2	0	0
GNR Project Loan (3.5yr)	130	0	0	10

Source: J.P. Morgan

Figure 93: Summary of CMBS issuance and dealer holdings

YTD Issuance ($bn)	2025	2024	% Diff.
Conduit	10.3	5.7	83%
SASB	27.1	13.2	104%
CRE CLO	8.4	1.6	439%
Other	0.4	0.0	-
Total Private Label	**46.1**	**20.5**	**125%**
Freddie K	10.4	6.7	54%
Freddie Multi PC	5.0	4.4	12%
FRESB	0.6	0.3	108%
Fannie MBS	8.3	10.1	-17%
GNR PL	2.5	2.7	-6%
Freddie Other	0.5	0.2	116%
Agency CMBS	**27.3**	**24.4**	**12%**
Total CMBS	**73.4**	**44.9**	**63%**

YTD Issuance ($bn)	2025	2024	% Diff.
Private Label Fixed	20.6	7.4	179%
Private Label Floating	25.5	13.1	95%
Agency Fixed	25.3	22.8	11%
Agency Floating	1.9	1.6	20%

Dealer Holdings ($bn)	3/26/25	3/19/25	2/26/25
Private Label	6.88	7.13	7.35
Agency CMBS	15.56	15.28	15.65

Source: J.P. Morgan, Commercial Mortgage Alert, Federal Reserve Bank of New York, Fannie DUS Disclose
Note: Dealer holdings reported with a 1-week lag. Freddie Multi PC and Fannie MBS data is a month lagged.

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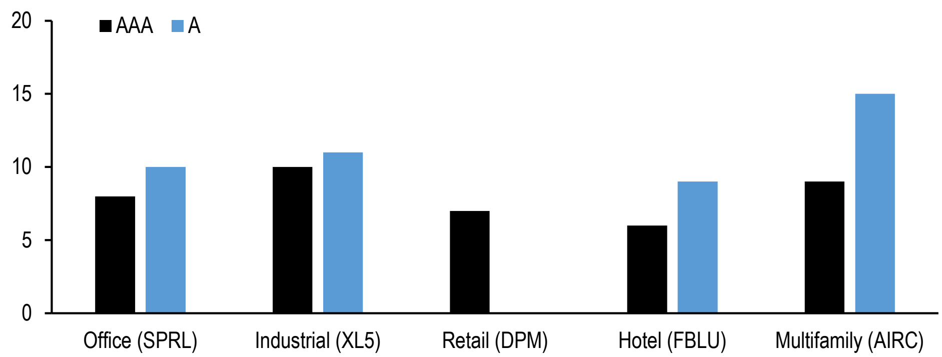
Weekly market themes

Market commentary - tariff shock hits CMBS

Market sentiment took a big hit this week on tariff news with the S&P 500 selling off 4.8% on Thursday. 10yr conduit LCF AAA spreads were 8bp wider week-over-week to J+102 while single-As widened 64bp to J+260. Benchmark SASB bonds were broadly 6-10bp wider at the AAAs and 10-15bp wider at the single-As as of Thursday morning open (Figure 94). CMBX AAA18 and BBB-18 were 4bp and 53bp wider, respectively week-over-week as of Thursday's close. 10yr Freddie K A2s were about 4bp wider week-over-week to J+49.

Figure 94: Benchmark SASB AAAs were 6-10bp wider this week

Week-over-week spread change (bp), as of April 3, 2025 open



Source: J.P. Morgan

It's still early to assess what the tariff impact will be as the market wrestles with the tariff brinkmanship. Nonetheless, the hit to sentiment is real and recession probabilities are rising. Our US economists are revisiting the US forecast but, in an initial reaction piece, estimated that the tariff measures could increase PCE prices by 1-1.5% this year with most of this realized in Q2 and Q3 of this year. They further argue that this can reduce disposable income growth into negative territory with the risk of contraction in real consumer spending in those quarters. According to our economists, "this impact alone could take the economy perilously close to slipping into recession. And this is before accounting for the additional hit to gross exports and to investment spending." On Thursday evening, our global chief economist upgraded the probability of a global recession from 40% to 60%.

As for tariff impact on CMBS, it seems industrial warehouse deals and consumer-adjacent segments like hotels and retail are most exposed. If blanket tariffs are indeed implemented in some form, we have to imagine the supply chain disruption combined with reduced consumption will have a deleterious impact on industrial warehouse demand at least in the near-term. The sector is coming off a period of heightened new construction deliveries and weakened absorptions (Figure 95). Any assumption of a significant near-term rebound in absorptions should be re-examined. Hotel cashflows are the quickest to react into growth slowdowns while retail properties have some buffer given relatively long tenant leases. Nonetheless, a pullback in consumer spending is negative for both sectors.

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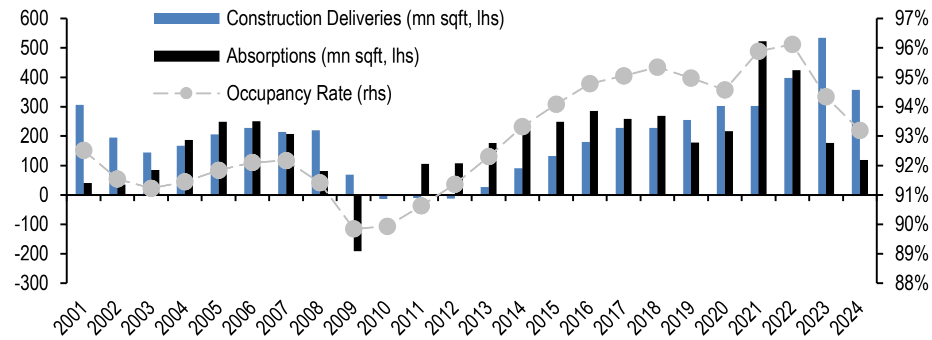
Figure 95: Is industrial warehouse demand vulnerable on the back of announced tariffs?

Annual US industrial net construction deliveries and net absorptions (millions of square feet) and occupancy rates (%)

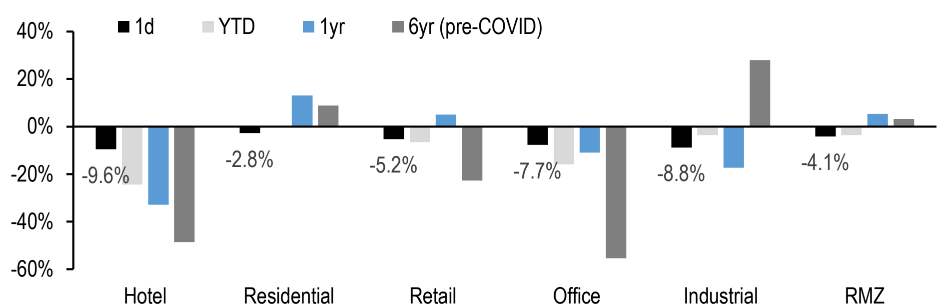


Source: Costar, J.P. Morgan

On Thursday, hotel REIT prices were down the most at -9.6%, followed by industrials at -8.8% and office trailing at -7.7% (Figure 96). Notably, on a pre-COVID lookback basis, industrial REITs have by far outperformed given strong pandemic-era demand and large rent spread capture.

Figure 96: In REIT equities, hotels were down the most followed by industrial

Bloomberg REIT index and RMZ price changes (%), as of April 3, 2025



Source: Bloomberg Finance L.P., J.P. Morgan

Indeed, it is this kind of outperformance that has also boosted industrial SASB issuance over the years (Figure 97). And based on our floating-rate SASB indices, industrial and multi-family have traded substantially tighter relative to the other sectors (Figure 98). Hotel and retail bonds are already on the wider side so from a spread widening standpoint, industrials may have more of a widening bias. Stay tuned for a deeper dive into industrial warehouses and CMBS exposures.

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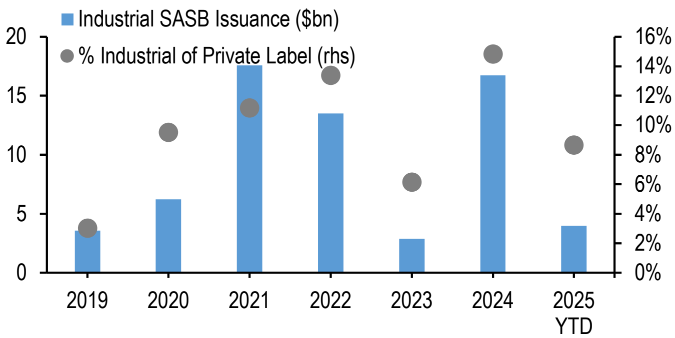
Figure 97: Industrial SASB issuance has grown over the years...

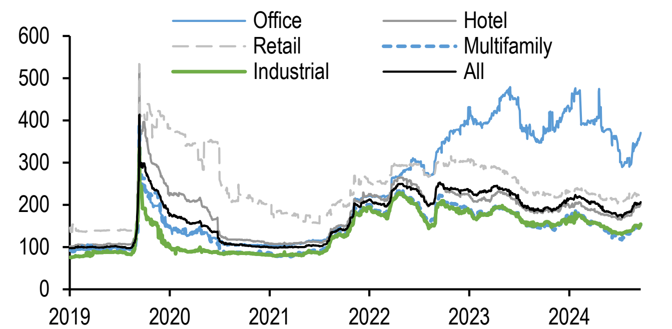
Industrial SASB issuance ($bn) versus % of total private label issuance (%)



Source: J.P. Morgan, Commercial Mortgage Alert, Bloomberg Finance L.P.

Figure 98: ...and industrial SASB bonds are one of the tightest trading segments in the SASB complex

J.P. Morgan Floating-Rate SASB AAA Index discount margin to 1m Term SOFR (bp), fully extended



Source: J.P. Morgan, Pricing Direct

For now, at the risk of stating the obvious, spreads are likely to bearishly steepen unless there are signs of de-escalation. When macro volatility takes hold, there aren't many places CMBS investors can hide but we continue to think trophy office SASB should be more insulated from tariff impact. Agency CMBS also stands out, in our view, as a lower volatility segment for weathering the storm. All of that said, barring a sharp recession, we like adding high quality CMBS at wider spreads.

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Primary markets

Figure 99: Summary of recently priced deals

Summary of CMBS deals that have priced between March 28, 2025 to April 3, 2025

Deal Name	Pricing Date	Deal Type	Deal Size ($mn)	Pricing Spread
BANK5 2025-5YR14	3/31/2025	Conduit CMBS	$884	A2: J+95 A3: J+97 AS: J+140 B: J+180 C: J+250 D: J+415 E: J+515
FREMF 2025-KS16	4/1/2025	Agency	$300	A: J+75
FREMF 2025-K538	4/1/2025	Agency	$688	AS: TSOFR+52 A2: J+38
ARES 2025-IND3	4/3/2025	Floating-rate SASB	$564	A: TSOFR+150 B: TSOFR+185 C: TSOFR+210 D: TSOFR+255 E: TSOFR+355

Source: J.P. Morgan, Bloomberg Finance L.P.

Below, we have included tables comparing the underwritten statistics of select deals that have priced recently.

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Figure 100: Select SASB new issue deal comparisons

Deal Name	ARES 2025-IND3	Previous Industrial Deal BX 2024-XL5
Deal Size ($mn)	564	**2,350**
Pricing Date	4/3/2025	**3/6/2024**
Sponsor(s)	AIREIT Operating Partnership LP	**Blackstone**
Property Type	Industrial	**Industrial**
Deal Type	Portfolio	**Portfolio**
Property Count	37	**186**
Coupon Type	Floating	**Floating**
Initial Term (years)	2	**2**
Fully Extended Term (years)	5	**5**
Mortgage Loan WAC	1m termS + 2.03%	**1m termS + 1.95%**
Prepayment Protection	Prepayment premium until 4/2026	**Spread maintenance until 3/2025**
% Freely Prepayable	25%	**30%**
AAA C/E %	44.7%	**38.6%**
AA	34.8%	**31.9%**
A	26.0%	**24.8%**
BBB	15.9%	**8.3%**
BB	0.0%	**5.0%**
B	N/A	**N/A**
U/W LTV	61.9%	**63.2%**
Moody's LTV	110.5%	**113.3%**
Fitch LTV	N/A	**102.6%**
S&P LTV	N/A	**N/A**
U/W DSCR	1.21	**1.07**
Moody's DSCR	0.73	**0.74**
Fitch DSCR	N/A	**0.86**
S&P DSCR	N/A	**N/A**
U/W NCF Debt Yield	7.6%	**7.5%**
Moody's Debt Yield	6.8%	**6.8%**
Fitch Debt Yield	N/A	**7.1%**
S&P Debt Yield	N/A	**N/A**
U/W NCF Cap Rate	4.7%	**4.9%**
Moody's Cap Rate	7.5%	**7.8%**
Fitch Cap Rate	N/A	**7.3%**
S&P Cap Rate	N/A	**N/A**

Source: J.P. Morgan, Bloomberg Finance L.P., Term sheet

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Figure 101: Select conduit CMBS new issue deal comparisons

Deal Name	BANK5 2025-5YR14
Deal Size ($mn)	884
Pricing Date	3/31/2025
AS C/E%	20.0%
AA-	15.0%
A-	11.3%
BBB-	8.6%
BB	5.8%
BBB- Thickness	1.5%
BB Thickness	2.9%
# of Loans	25
Avg. Loan Size ($mn)	35.4
Top 10 Loans %	66.2%
Office	24.2%
Retail	20.4%
Multifamily	17.3%
Lodging	14.4%
Industrial	3.9%
Other	19.8%
Total IO %	88.5%
Full Term IO %	86.9%
Partial Term IO %	1.6%
U/W Cap Rate	6.7%
U/W WAC	6.6%
U/W LTV	61.1%
Moody's Stressed LTV	119.1%
Fitch Stressed LTV	100.0%
S&P Stressed LTV	N/A
U/W DSCR	1.62
Moody's Stressed DSCR	0.93
Fitch Stressed DSCR	N/A
S&P Stressed DSCR	N/A
NCF Debt Yield	10.9%
Fitch Stressed NCF Debt Yield	9.5%
Risk Retention Type	Horizontal

	2025-5yr	2024-5yr
Average Deal Size ($mn)	**834**	**862**
Deal Count	**8**	**29**
AS C/E%	**20.3%**	**19.0%**
AA-	**15.1%**	**14.1%**
A-	**10.8%**	**10.4%**
BBB-	**7.3%**	**7.2%**
BB	**5.4%**	**5.3%**
BBB- Thickness	**1.8%**	**1.3%**
BB Thickness	**1.9%**	**1.9%**
Avg. # of Loans Per Deal	**34**	**38**
Avg. Loan Size ($mn)	**25.3**	**25.4**
Top 10 Loans %	**62.7%**	**58.9%**
Office	**17.4%**	**15.3%**
Retail	**15.7%**	**22.3%**
Multifamily	**23.2%**	**25.2%**
Lodging	**13.5%**	**10.6%**
Industrial	**5.5%**	**7.5%**
Other	**24.7%**	**19.0%**
Total IO %	**94.2%**	**93.8%**
Full Term IO %	**93.1%**	**91.1%**
Partial Term IO %	**1.2%**	**2.6%**
U/W Cap Rate	**6.4%**	**6.4%**
U/W WAC	**6.6%**	**6.8%**
U/W LTV	**58.4%**	**57.1%**
Moody's Stressed LTV	**110.2%**	**104.1%**
Fitch Stressed LTV	**100.1%**	**95.4%**
S&P Stressed LTV	**87.2%**	**82.5%**
U/W DSCR	**1.67**	**1.69**
Moody's Stressed DSCR	**0.99**	**1.06**
Fitch Stressed DSCR	**N/A**	**N/A**
S&P Stressed DSCR	**1.48**	**1.46**
NCF Debt Yield	**11.3%**	**11.6%**
Fitch Stressed NCF Debt Yield	**9.6%**	**10.1%**
Horizontal	**62.5%**	**48.3%**
Vertical	**12.5%**	**20.7%**
L-Shape	**25.0%**	**31.0%**

Source: J.P. Morgan, Bloomberg Finance L.P., Term sheet

BWIC Volumes

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Figure 102: Private label CMBS weekly (Thursday to Wednesday) BWIC volumes by product type, original average rating, vintage (conduit CMBS only) and property type (SASB only) ($mn), as of April 2, 2025

	4/2/2025	3/26/2025	3/19/2025	3/12/2025	3/5/2025	2/26/2025	1m Avg.	3m Avg.	6m Avg.	1yr Avg.	w/w Chg.	Curr. week vs. 1m Avg.	Curr. week vs. 3m Avg.
Total Private Label	**526**	**442**	**471**	**507**	**770**	**247**	**543**	**522**	**635**	**647**	**84**	**97%**	**101%**
Conduit	**289**	**318**	**275**	**256**	**507**	**166**	**329**	**308**	**388**	**381**	**-28**	**88%**	**94%**
AAA	183	168	206	179	314	121	210	203	257	256	15	87%	90%
AA	52	99	56	58	93	24	72	54	68	58	-47	73%	96%
A	44	16	12	7	50	7	26	23	32	29	29	171%	192%
BBB	10	25	1	11	44	15	18	24	23	29	-15	55%	42%
Below BBB	0	10	0	0	7	0	3	3	7	9	-10	0%	0%
Legacy Vintage	0	0	0	0	5	0	1	0	0	1	0	0%	0%
2010-15	31	12	28	38	21	19	26	32	59	84	19	119%	95%
2016-19	84	223	168	60	226	80	152	123	150	144	-138	55%	68%
2020-22	43	21	46	37	104	25	50	47	67	64	22	85%	91%
2023-24	122	61	33	102	146	42	93	103	111	88	61	132%	119%
SASB	**225**	**97**	**174**	**200**	**250**	**67**	**189**	**189**	**214**	**230**	**129**	**119%**	**119%**
AAA	82	40	111	61	118	14	82	98	118	125	42	100%	84%
AA	2	7	11	58	26	2	21	18	20	22	-4	10%	12%
A	24	29	23	27	27	11	26	25	23	22	-6	92%	93%
BBB	100	19	14	54	35	18	44	29	29	30	80	225%	346%
Below BBB	18	2	15	0	45	22	16	19	24	30	16	113%	94%
Industrial	5	16	5	10	12	16	9	23	32	34	-11	48%	20%
Multifamily	10	8	6	12	19	3	11	17	24	25	2	91%	59%
Retail	17	12	17	18	23	8	17	22	24	24	5	96%	78%
Lodging	65	24	62	69	91	5	62	54	47	47	41	105%	121%
Office	116	31	72	54	93	12	73	54	67	81	85	159%	213%
Data Center	4	2	0	12	0	10	4	7	8	7	2	113%	61%
Mixed Use	1	0	1	25	4	0	6	4	5	5	1	18%	25%
Other	8	3	11	0	8	13	6	8	8	8	4	125%	91%
CRE CLO	**11**	**27**	**22**	**51**	**9**	**14**	**24**	**22**	**30**	**34**	**-17**	**45%**	**48%**
AAA	1	19	16	2	6	3	9	11	18	21	-18	8%	7%
AA	0	3	5	0	0	4	2	1	1	1	-3	0%	0%
A	5	0	0	23	2	5	6	4	4	4	5	84%	131%
BBB	5	5	0	26	1	1	7	6	8	7	0	67%	80%
Below BBB	0	0	0	0	0	0	0	0	0	0	0	n/a	n/a

Source: J.P. Morgan

Ratings Tracker

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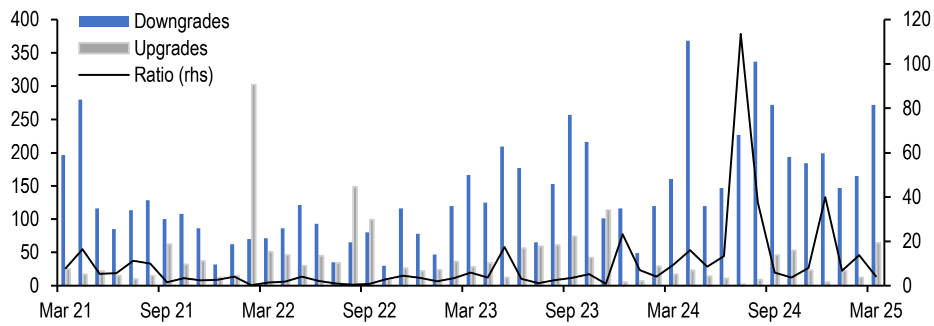
Figure 103: Summary of deals with ratings action

Summary of CMBS deals with ratings actions (upgrades and downgrades), March 28, 2025 to April 2, 2025

Deal Name	Deal Type	CMBX	Upgrade (+) / Downgrade (-)	# of Bonds w/ Ratings Changes	Senior Most Bond w/ Ratings Changes	Notches	Rating Agency
COMM 2012-LTRT	Other	N/A	-	5	A	1-2	S&P
JPMCC 2018-PHH	SASB	N/A	-	4	Ba1	2-5	Moody's
MSC 2016-PSQ	SASB	N/A	-	4	Aa2	4	Moody's
GSMS 2019-GC42	Conduit	13	-	3	AAA	1	S&P
BBCMS 2021-AGW	SASB	N/A	-	2	BBBL	1	DBRS Morningstar
GSMS 2018-SRP5	SASB	N/A	-	2	BB-	2-3	S&P

Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 104: CMBS ratings downgrades to upgrades ratio since March 2021



Source: J.P. Morgan, Bloomberg Finance L.P.

Delinquencies march on

Refi Success Rate

The refi success rate for conduit CMBS loans maturing in 2025 (excluding defeased loans) fell to 60% during the March 2025 remit period, down from 67% in the prior month (Figure 105). Throughout the year, conduit office loans have underperformed the rest of the market, with a refi success rate of just 50%. However, the large month-over-month decrease in March was mostly due to retail and lodging loans. In total, about $4bn of conduit loans reached their initial maturity dates in March, with retail and lodging loans accounting for about 42% of this total. Only 43% of retail loans scheduled to mature last month were able to successfully refinance, while just 37% of lodging loans were able to do so. These rates represent significant declines of 33% and 39%, respectively, from the prior month (Figure 106). In the fixed SASB market, the refi success rates continued to improve from the prior year at 67%. As for the floating SASB and CRE CLO markets, refi success rate continued to struggle relative to historical norms. This was largely due to the prevalence of maturity date extensions in each market.

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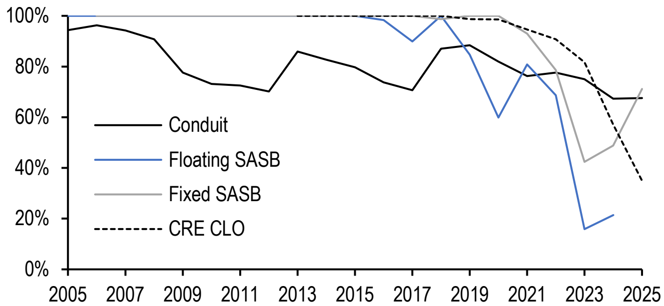
Figure 105: The refi success rate for conduit CMBS loans maturing in 2025 fell to 60% during the March 2025 remit period

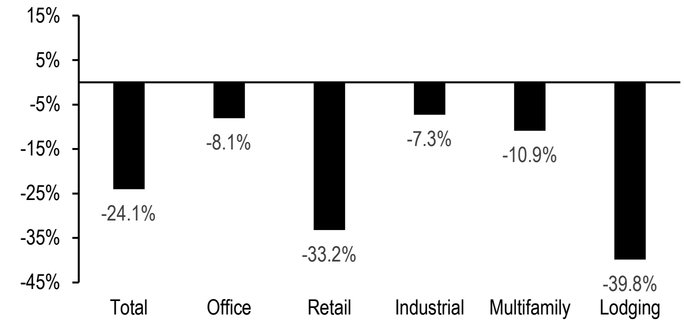
Private label CMBS refi success rate by product type, as of March 2025



Source: J.P. Morgan, Trepp

Figure 106: Month-over-month, the refi success rate for retail and lodging loans experienced significant declines

Month-over-month change in conduit CMBS refi success rates by property type, as of March 2025



Source: J.P. Morgan, Trepp

With regard to conduit CMBS retail loans, the low refi success rate for March was mainly due to three regional mall loans failing to refinance: the $235mn *Westfield Wheaton* (**CSAIL 2015-C1**, **CSAIL 2015-C2**, **CSAIL 2015-C3**), the $152mn *Westfield Trumbull* (**CSAIL 2015-C1**, **CSAIL 2015-C2**, **CSAIL 2015-C3**), and the $125mn *Westfield Palm Desert* (**MSBAM 2015-C21**, **WFCM 2015-C2**) loans. Currently, the special servicers and loan sponsors for each of these loans are discussing possible workouts. For *Westfield Trumbull*, the watchlist commentary for the *pari passu* pieces securitized in **CSAIL 2015-C2** and **CSAIL 2015-C3** indicates that the loan is being refinanced and will eventually be paid down. However, watchlist commentary on the *pari passu* piece in **CSAIL 2015-C1** states that the loan sponsor has no intention of refinancing the loan, causing a bit of a discrepancy. The eventual resolutions for *Westfield Wheaton* and *Westfield Palm Desert*, however, are still a unclear. Recent financials for both loans reflect underperformance relative to underwritten levels, though *Westfield Wheaton* has maintained a 99% occupancy rate. Potentially, these loans will be extended but this will be detrimental to the 2025 refi success rate for conduit CMBS loans.

CMBS credit performance

During the March 2025 remit period, the serious delinquency rate for private label CMBS increased by about 43bp, reaching 5.8% (Figure 107). Please note that this value incorporates March CRE CLO data, for which we have only 80% coverage as of this writing. After experiencing two consecutive months of decreases, the serious delinquency rate for private label office loans increased slightly in March, reaching 9%, the highest among all major property types (Figure 108). However, this month, delinquency rates for retail and lodging loans both experienced a meaningful increase of 70bp, largely as a result of several loans defaulting at maturity. The loan modification and foreclosure rates for private label loans each increased by 30bp, to 10.7% and 2.9%, respectively. Meanwhile, the special servicing rate remained relatively flat this month.

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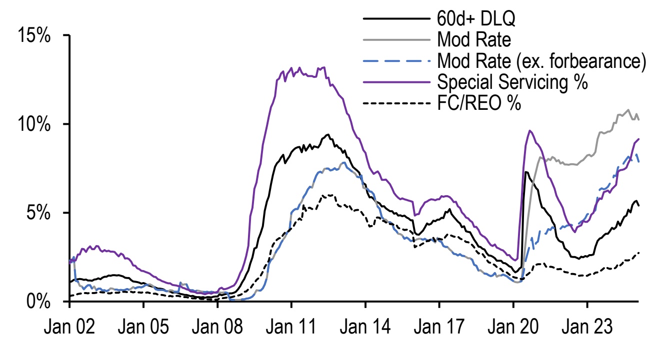
Figure 107: The serious delinquency rate for private label CMBS loans increased further to 5.8%

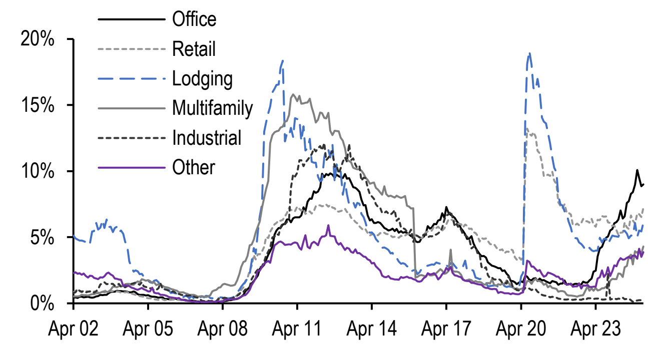
60d+ delinquency rate (including NP matured and FC/REO loans), modification rate,modification rate excluding temporary forbearance, special servicing, and foreclosure rate for private label CMBS, as of March 2025



Source: J.P. Morgan, Trepp

Figure 108: Retail and lodging loans were the marginal drivers of this month's increase in the overall PL CMBS serious delinquency rate

Private label CMBS 60d+ delinquency rate (including NP matured and FC/REO loans) split by property type, as of March 2025

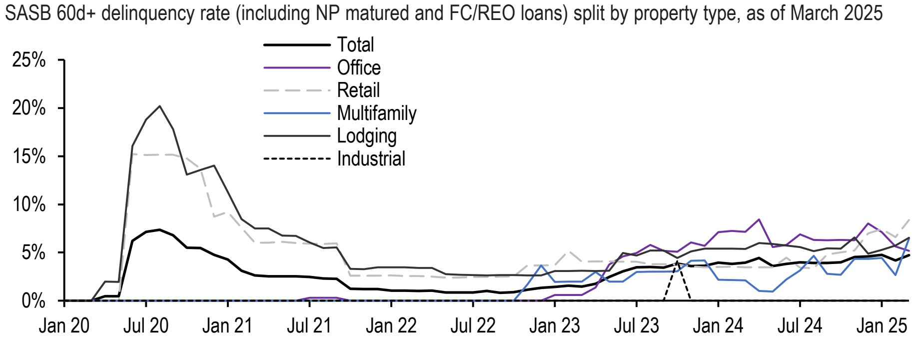


Source: J.P. Morgan, Trepp

The overall delinquency rate for SASB loans climbed to 4.7% in March, representing a 50bp increase from the prior month (Figure 109) . The mixed-use property *Times Square Plaza*, securitized in **TMSQ 2014-1500**, was reported as non-performing but has received a loan modification and will likely return to performing status next month. The loan modification provided a 18-month forbearance extension along with two 1yr forbearance extension options. In exchange for the forbearance extension, the sponsor has agreed to inject an additional $34mn into the deal, which will be used to cover shortfalls as well as future capital expenditures and leasing costs. The terms of this loan modification appear to be favorable to the borrower, who can potentially gain 3.5 years of forbearance. Meanwhile, holders of the this deal's bonds, which initially had a 10yr maturity, still won't receive any principal back.

Figure 109: The SASB serious delinquency rate increased to 4.7% with the marginal drivers of this increase being multifamily loans

SASB 60d+ delinquency rate (including NP matured and FC/REO loans) split by property type, as of March 2025



Source: J.P. Morgan, Trepp

The biggest contributors to this month-over-month increase in the SASB serious delinquency rate are two San Francisco multifamily loans, both sponsored by Maximus Real Estate Partners. The largest of these two loans is *The Parkmerced*, securitized in **MRCD 2019-PARK** ($955mn), and is backed by the largest multifamily property in San Francisco. Due largely to the pandemic, the property began to experience hardships as its occupancy rate declined, and by 2022 its NCF had fallen 50% from its underwritten level. Its most recent financials indicate some improvement, but are still well below their underwritten levels and

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it now has a DSCR well below 1.0x. This property has struggled for a while and has been in special servicing since April 2024. Recently, it has been reported that a loan modification was in place, but fell through due to the sponsor's unwillingness to commit the necessary capital. This caused the property to move into receivership. *The Cove at Tiburon*, also sponsored by Maximus and securitized in **SGCMS 2020-COVE** ($160mn), was reported as non-performing matured this month, as Maximus failed to make the balloon payment at maturity. This property is located in an affluent neighborhood right across the San Francisco Bay from the city of San Francisco. However, the property’s occupancy and NCF have declined 9% and 16%, respectively, from underwritten levels. Meanwhile, expenses have jumped nearly 30%, due in large part to real estate taxes. According to the latest special servicing commentary, Maximus still has not indicated what it intends to do with this property. San Francisco was one of the markets hit hardest by the pandemic. How these loans are eventually resolved will speak to Maximus’ belief in the strength of San Francisco’s potential recovery.

In the conduit market, the serious delinquency rate also experienced a meaningful increase last month, reaching 6.8%. The marginal drivers of this increase were retail and lodging loans (Figure 110). We discussed several of these loans in our refinance success rate section above. However, we continue to carefully watch conduit CMBS multifamily delinquencies. As we highlighted in several of our previous publications, there have already been a surprisingly high number of multifamily delinquencies in 2023 and 2024 vintage conduit CMBS loans and these delinquencies have been concentrated in a few loan sponsors. This month, serious delinquencies for 2024 multifamily loans increased another 170bp to 2.6%. The increase was from three loans with an outstanding balance of $130mn. With Fannie Mae recently announcing a $752mn credit loss provision for 2024 due to suspected mortgage fraud, staying vigilant on multifamily credit will be important going forward. In our appendix, we have listed all multifamily conduit CMBS , Freddie K, and FRESB loans that have transitioned from or to 30 days delinquent during the March 2025 remit period.

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Figure 110: The serious delinquency for 2024 vintage multifamily loans increased to 2.6% in March as an additional $130mn in loans became delinquent

Conduit CMBS 60d+ delinquency (including NP matured and FC/REO loans) and special servicing rate by vintage and property type; percentage split of new 60d+ delinquencies by either term defaults or maturity defaults; month-over-month change, as of March 2025

Vintage	Overall		Prop Type DLQ %						New Delinquencies	
	60d+ %	SS %	Office	Multifamily	Lodging	Retail	Industrial	Other	Term Defaults	Maturity Defaults
2010	0.3%	0.3%	n/a	1.4%	n/a	0.0%	n/a	0.0%	n/a	n/a
2011	42.4%	56.3%	n/a	100.0%	n/a	42.1%	n/a	n/a	n/a	n/a
2012	33.7%	61.0%	30.8%	100.0%	22.2%	36.6%	n/a	27.6%	n/a	n/a
2013	47.8%	57.8%	68.9%	100.0%	24.9%	38.6%	n/a	27.5%	0.0%	100.0%
2014	62.4%	77.2%	66.8%	93.9%	72.9%	59.3%	100.0%	45.9%	0.0%	100.0%
2015	13.4%	15.7%	20.3%	4.1%	12.3%	11.8%	0.6%	15.9%	0.0%	100.0%
2016	5.2%	8.8%	6.9%	1.6%	5.9%	2.4%	0.2%	10.6%	55.5%	44.5%
2017	4.4%	10.7%	7.5%	0.7%	3.7%	3.3%	0.6%	2.9%	72.4%	27.6%
2018	4.9%	7.6%	8.9%	2.1%	6.3%	1.8%	1.0%	4.5%	95.6%	4.4%
2019	4.6%	7.5%	10.5%	2.0%	4.0%	1.2%	0.6%	1.4%	61.9%	38.1%
2020	3.3%	5.4%	2.9%	11.5%	0.8%	0.1%	0.0%	2.0%	12.9%	87.1%
2021	0.9%	2.0%	1.3%	1.1%	0.0%	0.5%	0.3%	0.8%	100.0%	0.0%
2022	1.2%	3.8%	1.7%	1.9%	0.0%	0.2%	3.4%	0.4%	100.0%	0.0%
2023	1.5%	2.3%	0.9%	8.0%	0.0%	0.0%	0.8%	2.8%	100.0%	0.0%
2024	0.7%	0.4%	0.0%	2.6%	0.2%	0.0%	0.5%	0.4%	100.0%	0.0%
2025	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n/a	n/a
Total	**6.8%**	**10.0%**	**10.7%**	**4.0%**	**5.6%**	**6.9%**	**0.8%**	**3.0%**	**24.8%**	**75.2%**
MoM Change	**0.6%**	**0.2%**	**0.2%**	**-0.2%**	**0.7%**	**0.6%**	**0.1%**	**0.1%**	**-14.0%**	**14.0%**

Source: J.P. Morgan, Trepp

Additionally, in the conduit CMBS space, we continue to see increased levels of nonrecoverable advance (NRA) determinations. Master servicers are responsible for determining whether a loan is nonrecoverable, and in the conduit CMBS market, there are just three major master servicers. Before selling its private label CMBS loan servicing business to Trimont in a deal that recently closed, Wells Fargo was the master servicer for roughly 52% of outstanding conduit CMBS loans (Figure 111). Midland, a subsidiary of PNC Bank, services about 40% of the market, while KeyBank services about 8% of outstanding conduit CMBS loans. As of the March 2025 remit period, about $6.95bn, or approximately 2%, of outstanding conduit CMBS loans have been determined to be nonrecoverable, representing a 117% year-over-year increase (Figure 112). Although loans formerly serviced by Wells Fargo account for 52% of the market, they make up roughly 67% of all loans determined to be nonrecoverable. This suggests that Wells Fargo had been more aggressive with determining whether loans are nonrecoverable relative to the other master servicers.

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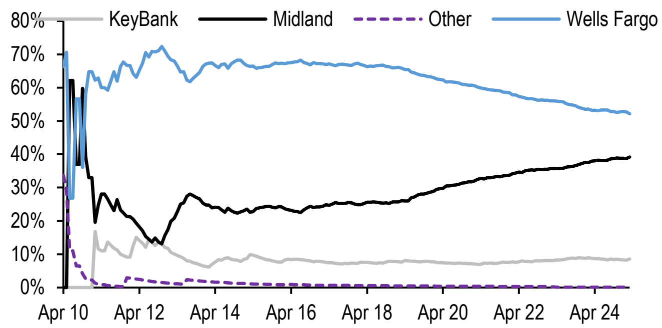
Figure 111: Before selling to Trimont, Wells Fargo dominated market share of the conduit CMBS master servicing business

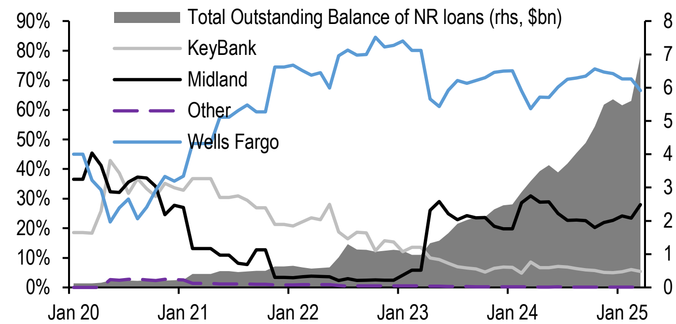
Master servicing market share of conduit CMBS loans



Source: J.P. Morgan, Trepp

Figure 112: The outstandinng balance of loans determined be nonrecoverable has grown by 117% in the last year to $6.95bn

Outstanding balance of conduit CMBS loans determined to be nonrecoverable and share of nonrecoverable loans by master servicer

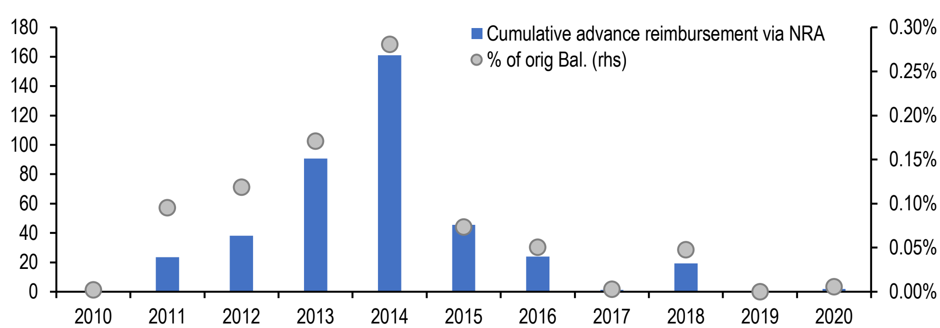


Source: J.P. Morgan, Trepp

As we previously discussed, these NRA determinations can eventually result in losses to bondholders because they allow servicers to use the proceeds from loans that pay down to reimburse themselves for advances and interest on advances made on nonrecoverable loans in the same trust before returning principal back to bondholders. Cumulative advance reimbursement due to NRA has, so far, has disproportionately impacted the 2013 and 2014 vintages (Figure 113). This is likely the result of these loans coming due during a challenging refinancing environment and a period of weak office sector fundamentals. However, we do expect cumulative advance reimbursement due to NRA to increase meaningfully for loans coming due in the near term. While many of these loans have experienced several years of cashflow growth, the higher interest rate environment will still present challenges for refinancing, especially for office loans.

Figure 113: Cumulative advance reimbursement due to NRA has disproportionately impacted the 2013 and 2014 vintages

Cumulative advance reimbursement due to NRA ($mn) and as percentage of original balance



Source: J.P. Morgan, Trepp

Appendix

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Figure 114: Newly 30 days delinquent multifamily loans, as of March 2025

Deal Name	Loan Name	Vintage	Deal Type	DLQ Code	Prior DLQ Code	Orig. Bal	Outstanding Bal	Loan Originator	Loan Purpose
BMO 2023-5C2	2046 Mapes Avenue	2023	Conduit	30	C	5,250,000	5,250,000	SMC	Refinance
BBCMS 2022-C14	340 Clifton Place	2022	Conduit	30	C	10,000,000	10,000,000	Barclays	Refinance
BBCMS 2023-5C23	47 East 129th Street	2023	Conduit	30	C	5,500,000	5,500,000	Barclays	Refinance
UBSCM 2017-C4	Fairmount at Brewerytown	2017	Conduit	30	C	28,000,000	28,000,000	UBS	Refinance
BMARK 2019-B14	Jersey City Group 1	2019	Conduit	30	C	32,050,000	31,883,932	JP Morgan	Refinance
BMARK 2019-B14	Jersey City Group 3	2019	Conduit	30	C	31,110,000	30,948,803	JP Morgan	Refinance
WFCM 2015-C27	Maple Leaf Apartments	2015	Conduit	NP	P	18,150,000	15,846,505	RMF	Refinance
KCM 2020-S3	Martin House	2020	Conduit	30	C	2,951,000	2,936,355	ReadyCap Commercial	Acquisition
WFCM 2020-C56	Parkmerced	2020	Conduit	NP	P	25,000,000	25,000,000	Barclays	Refinance
SGCMS 2016-C5	South Pointe Apartments	2016	Conduit	30	C	24,000,000	22,386,194	BSP	Acquisition
BBCMS 2020-C7	The Cove at Tiburon	2020	Conduit	NP	C	50,000,000	50,000,000	SGFC	Recapitalization/Refinance
WFCM 2021-C60	Villas at the Woodlands	2021	Conduit	30	C	3,500,000	3,286,126	LMF	Refinance
FHMS 2016-X2FX	111 East Avenue Apartments	2016	Freddie	NP	C	22,800,000	19,757,731	ARBOR COMMERCIAL FUNDING	Refinance
FHMS Q010	1781 North Fairfax Drive	2019	Freddie	30	C	1,034,175	944,224	Banc of California	Refinance
FHMS K046	316 East 3rd Street	2015	Freddie	NP	P	13,000,000	11,084,875	M & T REALTY	Refinance
FHMS K524	600 Nottingham	2024	Freddie	30	C	21,015,000	21,015,000	Arbor Agency Lending	Refinance
FHMS Q013	698 Bush Street	2020	Freddie	30	C	6,750,000	6,551,931	First Foundation Bank	Acquisition
FHMS K048	Brazos Point	2015	Freddie	NP	C	4,575,000	3,833,398	Berkadia	Refinance
FHMS Q012	Golden Square Apartments	2020	Freddie	NP	C	5,458,506	4,763,244	Citibank	New Construction
FHMS K049	Hillside Commons	2015	Freddie	30	C	21,250,000	17,709,101	Centerline	Refinance
FHMS KJ17	Hillside Commons	2017	Freddie	30	C	2,036,836	1,806,604	Hunt Mortgage	Supplemental
FHMS Q012	Independence Crossing	2020	Freddie	30	C	4,550,261	4,220,342	Citibank	New Construction
FHMS K153	Pennyrile Park Apartments	2023	Freddie	30	C	2,421,000	2,421,000	Berkadia	Refinance
FHMS KF49	The Ella	2018	Freddie	30	C	4,367,200	4,046,449	SouthTrust	Acquisition
FHMS K-150	Whispering Oaks	2022	Freddie	30	C	1,600,000	1,586,413	Berkadia	Refinance
FRESB 2017-SB43	1010 South 1st Avenue	2017	FRESB	30	C	1,800,000	1,663,772	CBRE	Refinance
FRESB 2017-SB37	1426 Putnam Avenue	2017	FRESB	30	C	1,062,000	951,293	Greystone	Refinance
FRESB 2020-SB75	1660 St. Johns Place	2020	FRESB	NP	C	2,116,000	1,952,520	Greystone	Refinance
FRESB 2021-SB88	1663 Alton Street	2021	FRESB	30	C	3,226,218	3,001,840	Sabal TL1	Acquisition
FRESB 2019-SB65	307 Stuyvesant Avenue	2019	FRESB	30	C	2,344,339	2,130,549	CBRE	Refinance
FRESB 2020-SB80	561-571 East 64th Street Apartments	2020	FRESB	30	C	1,259,831	1,144,167	ReadyCap Commercial	Refinance
FRESB 2016-SB25	611 East 161st Street	2016	FRESB	30	C	1,346,000	1,167,809	The Community Preservation Corporation	Refinance
FRESB 2017-SB35	705 Saint Mark's Avenue	2017	FRESB	30	C	3,232,000	3,129,461	Greystone	Refinance
FRESB 2018-SB46	84 Lafayette Avenue	2018	FRESB	30	C	4,650,000	4,123,790	Greystone	Refinance
FRESB 2022-SB103	Courtyard On Vine	2022	FRESB	30	C	2,488,627	2,369,237	CBRE	Refinance
FRESB 2021-SB85	Dallas Landing	2021	FRESB	30	C	5,175,000	4,849,383	Greystone	Refinance
FRESB 2021-SB89	Llandover Flats	2021	FRESB	30	C	1,800,000	1,700,340	Berkadia	Acquisition
FRESB 2022-SB100	Valley Heights Apartments	2022	FRESB	30	C	3,988,079	3,786,259	Berkadia	Refinance

Source: J.P. Morgan , Trepp
Note: Only includes conduit CMBS, Freddie, and FRESB loans

Figure 115: Multifamily loans that remained 30 days delinquent in March 2025

Deal Name	Loan Name	Vintage	Deal Type	DLQ Code	Prior DLQ Code	Orig. Bal	Outstanding Bal	Loan Originator	Loan Purpose
BMO 2023-C5	Cincinnati Multifamily Portfolio	2023	Conduit	30	30	39,000,000	39,000,000	BMO	Recapitalization
BMO 2023-C6	Maple Creek Village	2023	Conduit	30	30	28,200,000	28,200,000	BMO	Recapitalization
BBCMS 2023-C22	Knoll Ridge Apartments	2023	Conduit	30	30	25,000,000	25,000,000	BMO	Refinance
BMO 2023-C6	Cincinnati Multifamily Portfolio II	2023	Conduit	30	30	21,000,000	21,000,000	BMO	Recapitalization
BMO 2023-C7	Knoll Ridge Apartments	2023	Conduit	30	30	17,500,000	17,500,000	BMO	Refinance
BANK 2022-BNK43	4520 S Drexel Boulevard	2022	Conduit	30	30	15,400,000	15,400,000	MSBNA	Refinance
BMO 2023-5C2	2219 N Hamilton Avenue	2023	Conduit	30	30	10,975,000	10,975,000	GSBI	Refinance
BMO 2024-5C4	1281 Hoe Avenue	2024	Conduit	30	30	8,450,000	8,450,000	SMC	Refinance
FHMS Q006	431 Audubon Avenue	2017	Freddie	30	30	1,358,464	701,907	Dime	Refinance
FRESB 2021-SB90	Tara Oaks	2021	FRESB	30	30	7,208,000	6,817,048	CBRE	Acquisition
FRESB 2022-SB102	Tiger Garden Apartments	2022	FRESB	30	30	1,675,000	1,630,217	Greystone	Refinance
FRESB 2021-SB92	26 Yonkers Avenue	2021	FRESB	30	30	1,528,055	1,429,887	Basis Multifamily Capital	Refinance
FRESB 2016-SB20	314 Grove Street	2016	FRESB	30	30	1,300,000	1,236,188	Greystone	Refinance
FRESB 2020-SB79	The Berwick	2020	FRESB	30	30	1,040,000	1,011,285	Basis Multifamily Capital	Refinance

Source: J.P. Morgan , Trepp
Note: Only includes conduit CMBS, Freddie, and FRESB loans

Figure 116: Multifamily loans that became seriously delinquent (60d+ including non-performing matured and FC/REO) in March 2025

Deal Name	Loan Name	Vintage	Deal Type	DLQ Code	Prior DLQ Code	Orig. Bal	Outstanding Bal	Loan Originator	Loan Purpose
BMO 2024-5C5	The Pointe & Oak Shadows	2024	Conduit	60	30	34,850,000	34,850,000	SMC	Refinance
BMO 2023-C7	The Park at Trowbridge	2023	Conduit	60	30	33,000,000	33,000,000	BMO	Refinance
BANK5 2024-5YR6	Drexel Terraces	2024	Conduit	60	30	31,000,000	31,000,000	MSBNA	Refinance
UBSCM 2019-C16	Baton Rouge Portfolio	2019	Conduit	60	30	17,800,000	17,098,795	RMF	Refinance
BBCMS 2024-C26	Euclid Apartments	2024	Conduit	60	30	15,000,000	15,000,000	LMF	Refinance
BMO 2024-5C4	Euclid Apartments	2024	Conduit	60	30	15,000,000	15,000,000	LMF	Refinance
CSAIL 2016-C6	Lofton Place Apartments	2016	Conduit	60	30	15,250,000	14,224,561	BSP	Acquisition
WFCM 2024-5C1	Euclid Apartments	2024	Conduit	60	30	13,000,000	13,000,000	LMF	Refinance
BBCMS 2024-5C27	The Pointe & Oak Shadows	2024	Conduit	60	30	12,000,000	12,000,000	SMC	Refinance
WFCM 2024-5C2	Euclid Apartments	2024	Conduit	60	30	10,000,000	10,000,000	LMF	Refinance
3650R 2022-PF2	Prince Hall Apartments	2022	Conduit	60	30	9,912,500	9,912,500	3650 Reit	Refinance
FHMS Q023	Neptune Portfolio	2023	Freddie	60	30	34,000,000	34,000,000	Merchants Bank of Indiana	Refinance
FHMS KF129	The Allure Apartments	2022	Freddie	60	30	22,565,000	22,348,597	Walker & Dunlop	Refinance
FHMS KF103	Vizcaya Apartments	2021	Freddie	60	30	17,362,000	17,362,000	Walker & Dunlop	Acquisition
FHMS Q006	350 Audubon Avenue	2017	Freddie	60	30	2,172,544	1,794,832	Dime	Refinance
FRESB 2022-SB103	William Penn Apartments	2022	FRESB	60	30	5,325,544	5,070,055	CBRE	Refinance
FRESB 2022-SB94	913 Bellevue Street Southeast	2022	FRESB	60	30	3,848,000	3,638,570	ORIX	Refinance
FRES 2018-SB56	469 East 98th Street	2018	FRESB	60	30	3,520,000	3,205,335	Sabal TL1	Refinance
FRESB 2022-SB100	Redlands Apartments	2022	FRESB	60	30	2,985,252	2,821,272	Berkadia	Refinance
FRESB 2021-SB91	Bay Tower Apartments	2021	FRESB	60	30	1,980,519	1,853,681	ORIX	Acquisition
FRESB 2019-SB60	126 Willoughby Avenue	2019	FRESB	60	30	1,593,851	1,429,859	Greystone	Refinance
FRESB 2022-SB94	Barksdale Apartments	2022	FRESB	60	30	1,356,000	1,346,106	CBRE	Refinance

Source: J.P. Morgan , Trepp
Note: Only includes conduit CMBS, Freddie, and FRESB loans

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Cross Sector Spreads

Product	Tranche / Bucket	Current	Changes			5yr Trailing		Percentile Rank		
		4/3/25	-1w	-1m	-1y	Min	Max	3yr	5yr	7yr
Conduit CMBS	3yr AAA	85	6	21	-1	26	246	20.4%	46.6%	60.9%
Treasury Spread (bp)	5yr AAA	126	6	26	-9	47	244	36.0%	58.2%	69.2%
	5yr LCF AAA	102	7	21	N/A	78	120	52.1%	52.1%	52.1%
	10yr LCF AAA	102	8	23	14	59	201	37.2%	56.1%	66.2%
	10yr AS	155	16	49	29	74	301	39.3%	59.8%	70.2%
	10yr AA	195	26	69	43	90	529	40.9%	59.1%	69.7%
	10yr A	260	64	94	20	123	756	38.1%	55.6%	67.2%
	10yr BBB-	545	69	141	-197	263	1354	23.3%	44.1%	52.7%
	XA	160	5	42	-8	90	535	32.3%	44.2%	57.0%
Freddie K	7yr A2	44	4	6	-1	3	76	16.0%	44.4%	47.3%
Treasury Spread (bp)	10yr A2	49	4	8	-5	7	99	19.2%	45.2%	36.9%
	2020 Vintage B	162	1	1	-7	109	441	8.8%	31.4%	31.2%
	2020 Vintage C	196	1	1	-3	158	593	19.1%	34.6%	34.0%
	X1	115	5	5	-50	50	400	3.2%	22.9%	29.5%
	X3	280	10	5	-95	225	695	3.2%	21.0%	38.0%
	SOFR Floater (DM)	60	4	6	5	19	90	50.0%	64.2%	64.2%
FRESB	A5H (5yr Hybrid ARM)	125	5	5	5	11	135	79.4%	87.7%	91.1%
Treasury Spread (bp)	A10F (10yr Fixed Rate)	85	7	10	-5	15	122	50.6%	69.3%	74.4%
Fannie DUS	7/6.5 TBA	52	6	4	3	4	88	30.1%	55.1%	61.6%
Treasury Spread (bp)	10/9.5 TBA	56	7	7	-2	11	108	26.2%	49.4%	41.3%
	SOFR SARM (DM)	60	2	0	0	22	95	18.5%	45.4%	45.4%
Fannie ACES	7yr A2	50	5	8	1	4	80	39.7%	60.5%	65.2%
Treasury Spread (bp)	10yr A2	52	4	7	-5	9	105	22.4%	47.5%	38.3%
GNR Project Loans	3.5yr	130	0	0	-10	71	182	26.9%	56.3%	68.7%
Treasury Spread (bp)	7.5yr	140	0	0	-20	71	201	8.3%	45.2%	60.8%
	12yr	140	0	0	-20	79	235	4.4%	40.9%	57.8%
Production Coupon	FN/FR 30yr PC (OAS)	21	-1	5	-7	-35	65	23.9%	53.0%	39.6%
	FN/FR 30yr PC (ZV)	125	4	7	4	-1	154	57.6%	74.6%	81.5%
ABS	3yr AAA Credit Card	41	0	7	-7	12	96	14.9%	45.6%	57.6%
Treasury Spread (bp)	3yr AAA Prime Auto	50	0	7	-20	15	130	7.4%	39.9%	56.2%
	3yr BBB Subprime Auto	130	0	20	-25	72	566	9.4%	30.9%	44.8%
CLO	AAA	134	-3	26	-10	91	268	30.6%	44.5%	58.2%
Discount Margin	BBB	334	-7	61	-50	255	775	12.0%	8.7%	16.6%
	BB	718	-4	5	-60	693	1,624	5.4%	19.6%	35.0%
JULI (ex-EM)	3-5yr	87	5	11	-1	58	286	27.2%	41.9%	39.2%
Treasury Spread (bp)	5-7yr	103	6	14	4	71	277	34.4%	45.7%	37.3%
	7-10yr	115	5	14	0	87	290	30.8%	42.4%	33.4%
	7-10yr A	101	5	11	0	68	231	33.0%	45.4%	43.7%
	7-10yr REITs	126	5	17	-5	96	350	22.3%	36.0%	30.2%
High Yield	Domestic HY	382	21	63	51	289	1,002	40.2%	28.4%	22.6%
Spread to Worst (bp)	Energy	357	21	64	95	234	2,080	56.1%	33.6%	24.0%

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Cross Sector Spreads (continued)

Product	Tranche / Bucket	Current 4/2/25	Changes -1w	Changes -1m	Changes -1y	5yr Trailing Min	5yr Trailing Max	Percentile Rank 3yr	Percentile Rank 5yr	Percentile Rank 7yr
CMBX (bp)	AAA17	80	0	8	6	69	92	63.8%	63.8%	63.8%
	AAA16	76	0	9	5	64	119	36.0%	36.0%	36.0%
	AAA15	70	1	11	2	57	115	17.2%	20.7%	20.7%
	AAA14	62	0	10	-3	45	109	12.0%	34.5%	34.5%
	AAA13	56	0	9	-6	42	103	11.8%	35.9%	34.6%
	AAA12	53	-1	10	-6	37	99	12.7%	41.7%	44.1%
	AAA11	48	-2	11	-8	32	95	12.4%	43.0%	42.6%
	AAA10	45	-1	12	-8	26	91	12.7%	44.0%	47.2%
	AAA9	42	-1	-1	-13	21	86	11.4%	44.2%	49.2%
	AAA8	51	0	0	-8	18	134	45.8%	67.2%	75.6%
	AAA7	0	0	0	0	0	60	0.0%	0.0%	0.0%
	BBB-17	550	5	74	56	459	583	97.9%	97.9%	97.9%
	BBB-16	644	7	89	80	535	879	61.4%	61.4%	61.4%
	BBB-15	681	8	99	103	375	922	72.8%	74.4%	74.4%
	BBB-14	771	10	80	85	320	985	63.2%	73.7%	73.7%
	BBB-13	938	8	72	90	349	1,137	79.2%	86.4%	86.4%
	BBB-12	995	19	147	100	355	1,282	72.9%	83.4%	86.3%
	BBB-11	908	10	94	157	359	1,174	73.9%	82.7%	87.2%
	BBB-10	1,786	15	202	564	485	1,819	99.0%	99.4%	99.6%
	BBB-9	4,283	85	929	2,863	502	4,322	99.7%	99.8%	99.8%
CDX (bp)	5yr IG	61	3	11	10	46	117	42.9%	52.6%	52.4%
	5yr HY	374	34	62	49	267	707	43.1%	55.2%	63.4%

Source: J.P. Morgan

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Publication Date	Publication title	
	CMBS Weekly	
3/28/2025	CMBS Weekly: The city that sometimes sleeps	
3/21/2025	CMBS Weekly: What you talkin' about Willis?	
3/14/2025	CMBS Weekly: Quality over quantity	
3/7/2025	CMBS Weekly: Still need some time	
2/28/2025	CMBS Weekly: Returning to the office	
2/21/2025	CMBS Weekly: Should we set up a call?	
2/7/2025	CMBS Weekly: A decade of CMBS liquidity	
1/31/2025	CMBS Weekly: The DLQ is in the details	
1/24/2025	CMBS Weekly: Let's take 5	
1/10/2025	CMBS Weekly: Resolutions don't always pay off	
12/20/2024	CMBS Weekly: Refis through a vintage lens	
12/13/2024	CMBS Weekly: No time to repay	
11/15/2024	CMBS Weekly: 2025 refi success rate outlook	
11/1/2024	CMBS Weekly: When interest falls short	
10/25/2024	CMBS Weekly: NRA determinations present more loss risk to conduit CMBS	
10/18/2024	CMBS Weekly: Some things get better, some things get worse	
10/4/2024	CMBS Weekly: CRE CLOs - winter's end	
9/27/2024	CMBS Weekly: Under the Write conditions	
9/20/2024	CMBS Weekly: At long last	
9/13/2024	CMBS Weekly: 5yr vs. 10yr LCF AAA relative value and CRE CLO August remit update	
9/6/2024	CMBS Weekly: August 2024 remit review	
8/23/2024	CMBS Weekly: 2023 CMBS financials update - operating expense growth moderates but still running hot	
8/16/2024	CMBS Weekly: Higher office delinquencies in July and more CRE CLO mods and buyouts	
8/2/2024	CMBS Weekly: Multifamily bottoming and lodging humming along	
7/26/2024	CMBS Weekly: Slow and steady is the name of the game	
7/12/2024	CMBS Weekly: June 2024 remit review	
6/28/2024	2024 CMBS Midyear Outlook: At the doorstep of the acceptance phase	
	Other periodicals	Frequency
4/3/2025	CMBX Daily Analytics	Daily
3/7/2025	CMBS Weekly Datasheet	Weekly
3/7/2025	CMBS Credit Monthly	Monthly
3/7/2025	Agency CMBS Databook	Monthly
3/18/2025	CRE CLO Monthly	Monthly
2/12/2025	CRE Observer Chartbook	Quarterly
2/11/2025	Office Market Monitor	Monthly
	Ad-hoc publications of note	
3/17/2025	Spread Startegy Spotlight: Tariff Tumult	
1/24/2025	CLO versus CMBS: Where is the Value?	
1/15/2025	Thoughts from the CREFC conference: Feels like July in Pamplona	
11/26/2024	2025 CMBS Outlook: Wheat from chaff	
6/28/2024	Credit Watch: A Focus on the Consumer: Spending or Spent?	
6/27/2024	US Credit Research: Data Center Deliberations; Credit Implications of a Growing Mega-Trend	
5/14/2024	1740 Broadway note sold: A post mortem	
5/2/2024	The great debate: Macro and market questions by the dozen	
5/2/2024	Credit Watch: Rate-atouille – what's cooking in credit markets given recent rate moves?	
4/5/2024	Credit Watch: Private Credit Uncovered – uncovering even more	
2/12/2024	CMBS Special Topic: Servicer-Related Risks on the Rise As Market Conditions Remain Challenged	

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Asset-backed Securities

April 4, 2025

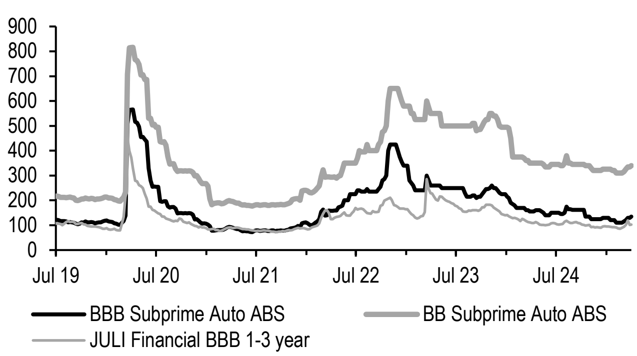
- Activity in the ABS market was muted as investors observed Liberation Day throughout the week; despite broad uncertainty, ABS continue to offer a safe haven with relatively attractive spreads
- FY24 Affirm data indicates a 38% y/y growth in Gross Merchandise Value (GMV); delinquencies and losses on recent vintages across Affirm cohorts in line or lower than historical levels
- We see value in the spread pickup on AFFRM at the top of the capital stack over comparable unsecured consumer ABS; while the bottom tranches across off-the-run ABS asset classes may well see more spread concessions in the near term given broad macroeconomic and market volatility

Tariffs and tariffs and tariffs, oh my!

In a week where it was all about tariffs, the ABS market was in spectator-mode with limited activity and spreads softer. As we noted coming into the year, federal policy was the biggest headwind and main reason we favored benchmark, high quality ABS. With increasing recession odds, we have seen spread widening across ABS, but credit curves remain relatively flat and there remains relatively little sponsor tiering on subordinates. On the plus side, ABS are well structured to withstand stress, comparable to the credit rating, across the capital stack. However, recession scenarios incorporate greater sponsor/idiosyncratic risks for ABS. As such, BBB and BB auto ABS indicative spreads, similar to unsecured corporate credit, remain close to the tight end of recent ranges (Figure 117). In addition, the credit curve for ABS has remained flat, lagging the limited steepening in corporates thus far this year (Figure 118). Regardless of the recession forecasts, relative valuations point to more room for outperformance in ABS than comparable credits. In addition, high quality, liquid, plain vanilla ABS remain a well-fortified and proven safe haven in periods of uncertainty and volatility.

Figure 117: BBB and BB auto ABS spreads versus unsecured corporates

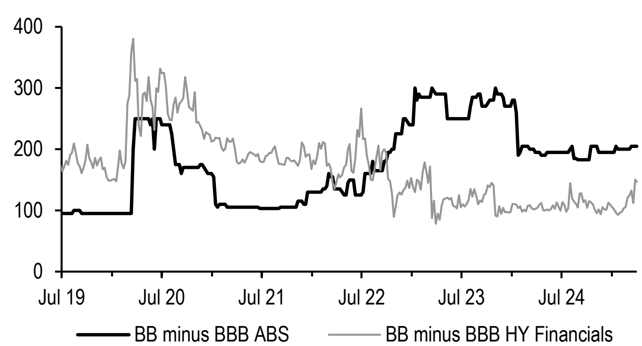
Spreads to Treasury (bp)



Source: J.P. Morgan

Figure 118: Credit curves in ABS versus unsecured corporates

Spread differentials (bp)



Source: J.P. Morgan

Affirm 24H2 update

We provide an update on the Affirm loan set by analyzing collateral and performance trends for recent originations. Since our focus piece on the company in mid October last year, in

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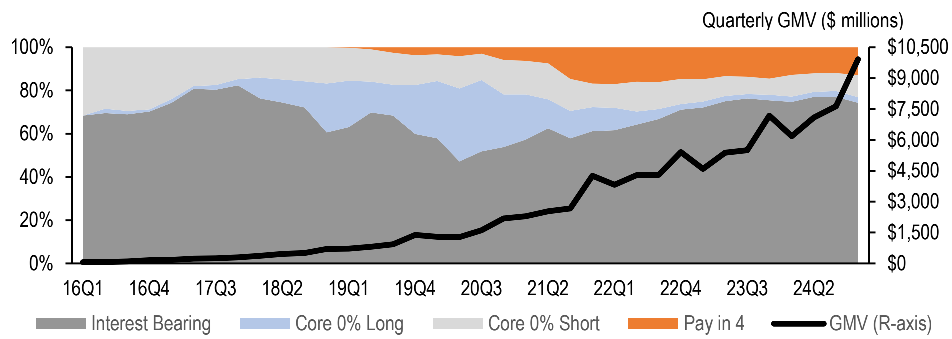
which we provided some initial context around the buy-now-pay later (BNPL) sector as well as origination and performance trends, we now have the complete dataset encompassing full year 2024 production. Since Affirm offers both zero-interest (of varying terms) and interest-bearing installment loans, we categorize loans in the Affirm dataset into four categories: 1) "Core 0% Long'"(loans with term greater than 12 months and 0% APR), 2) "Core 0% Short" (loans with term between 3-12 months and 0% APR), 3) interest bearing loans (loans with APR >0%) and 4) "Pay in 4" (formerly known as split pay; 0% APR loans directed at low order value purchases, with monthly/bi-weekly payments and term < 3 months). Affirm's 24Q4 Gross Merchandise Value (GMV), which is defined as the total dollar amount of all transactions on the Affirm platform during the period (net of refunds), tracked $9.9bn per our dataset and represents a YoY growth of roughly 38% (Figure 119). We note that Q4 GMV's have tended to exhibit seasonality and generally come in higher given the festive/ holiday season. While the interest bearing offerings continue to dominate in terms of share of GMV and make up 67% of the $2.8bn growth in GMV over the past two quarters, GMVs in the "Pay in 4", "Core 0% Long" and "Core 0% Short" segments have grown by 49%, 59% and 69% over the same period, and now account for 13%, 3% and 10% of the total 24Q4 GMV, respectively.

Figure 119: Affirm quarterly product composition split and gross merchandise volume (GMV) trend



Note: Based on quarterly originations and calendar years
Source: J.P. Morgan, dv01

On the credit score distribution front, interest-bearing originations remained consistent in the 660-670 range, while for the zero-interest products, the core 0% long offering has stayed within a range of 730-740 whereas the core 0% short cohort has seen a slight dip in 24H2 and is at 710 versus 732 in 24Q2 (Figure 120). Additionally, the pay-in-4 cohort, that has seen improvements in FICO trends as compared to the 21/22 vintage, still roughly in line with prints observed over 2024. The weighted average credit score for our MPL index sits between the interest-bearing and core 0% AFFRM cohorts. We note that our MPL index composition has changed since early this year and now includes Pagaya (PAID) deals, which constitutes about half of the $ balance for the sector and is backed by second look loans that are lower down in credit.

Affirm's weighted average loan balance across all it's loan cohorts for 24Q4 at $363 is sequentially down q/q from $388 in 24Q3 and $436 in 24Q2, which is primarily a result of lower average balances in interest bearing and Core 0% Short cohorts (Figure 121). Of note, the average balance for the Core 0% Short loan originations reduced the most on a relative basis, falling from $1,097 in 24Q2 to 42% lower at $635 in 24Q4. The average balance (on a per loan basis) across Affirm is also lower compared to $10,250 for our MPL index given Affirm loans are underwritten on a single-purchase transaction basis unlike traditional consumer loans that provide borrowers with a one-time lump sum. Consequently, the average

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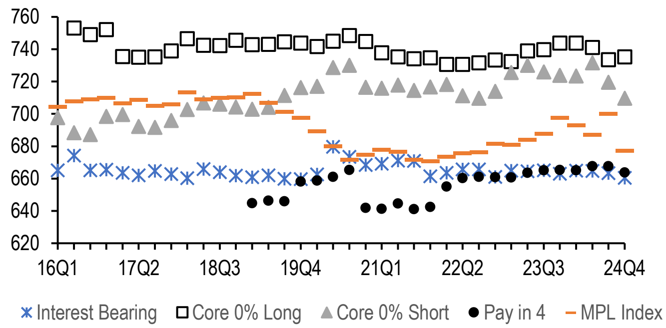
scheduled monthly payment for loans across Affirms cohorts also reduced from $154 in 24Q2 to $133 in 24Q4, as the average loan term remained unchanged at 11 months (Figure 122 and Figure 123).

Figure 120: Credit score distribution by product type

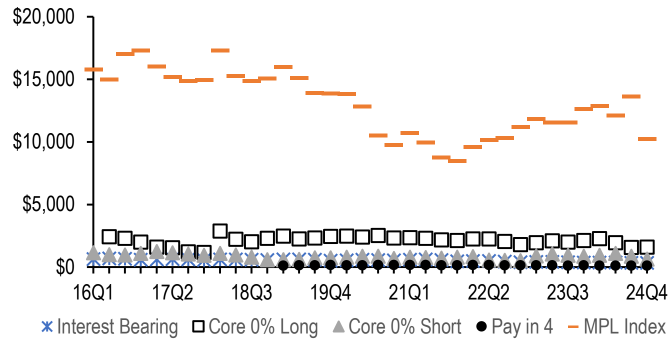
Average credit score by quarterly originations



Source: J.P. Morgan, dv01

Figure 121: Average order value significantly lower for AFFRM products versus average loan balance for MPL

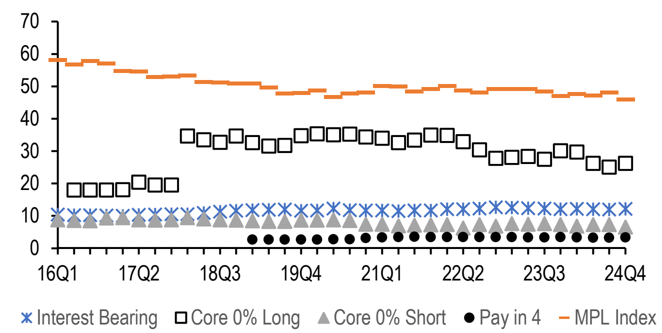
Average loan balance ($) by quarterly originations



Source: J.P. Morgan, dv01

Figure 122: Lower loan term for AFFRM products compared to MPL

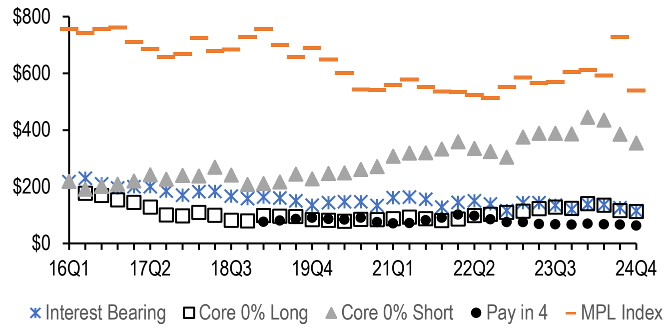
Average original term (months) by quarterly originations



Source: J.P. Morgan, dv01

Figure 123: Lower monthly scheduled payments for AFFRM products compared to MPL

Average monthly payments ($) by quarterly originations



Source: J.P. Morgan, dv01

Moving on to performance, 30+ delinquencies on Pay-in-4 loans remained stable (Figure 124), tracking in line or slightly lower than the interest bearing cohort. This is an improvement from the elevated delinquencies seen in the growth phase of 2021-2022 due to factors such as repeat customers and improved underwriting as evidenced by the credit score trends noted earlier. Subsequently, arrears for this loan set have stabilized on recent originations, with losses tracking 0.8% at loan age 5 months for 24Q2 originations versus 4.5%, 3.9%, 2.0% and 1.1% in 21Q2, 21Q4, 22Q2 and 22Q4, respectively (Figure 125). For zero-interest loans, 30+ delinquencies remained significantly lower, between 0.6%-0.7% and 0.7%-0.9% for Core 0% Long and Core 0% Short pools, respectively (Figure 126). Of note, the Core 0% segment is typically offered to prime borrowers, with the long variant positioned towards those with even higher credit scores. Lastly,interest bearing Affirm loans saw well behaved delinquencies since 2021 compared to the deterioration on the MPL side reflecting the collateral trends (Figure 127).

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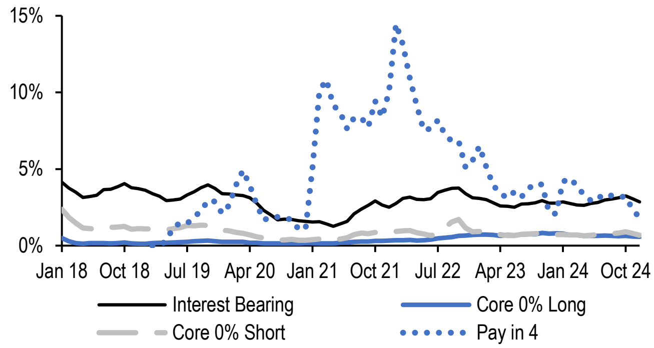
Figure 124: 30+ delinquency performance across Affirm product types

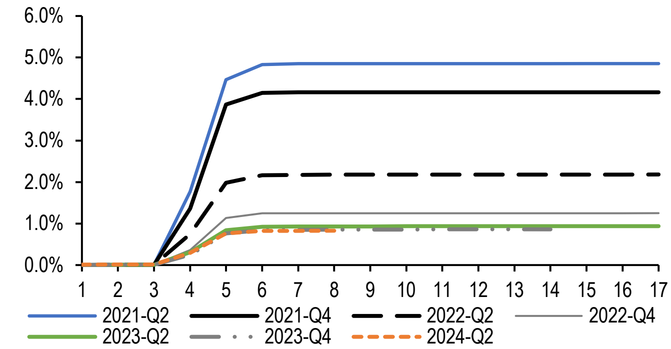
% of current balances



Source: J.P. Morgan, dv01

Figure 125: Pay-in-4 performance stabilizing

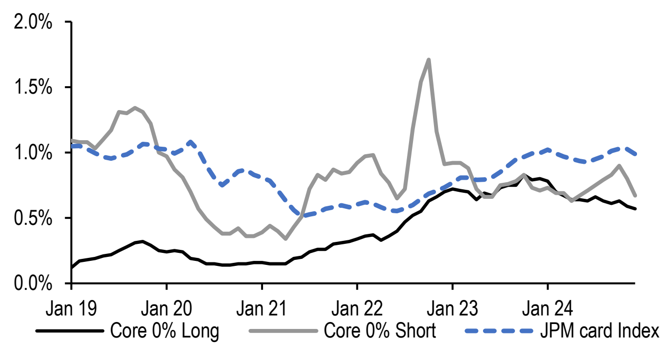
Cumulative net loss by quarterly vintage



Note: Only select quarters shown
Source: J.P. Morgan, dv01

Figure 126: Core 0% 30+ delinquencies in line with the bankcard master trust index

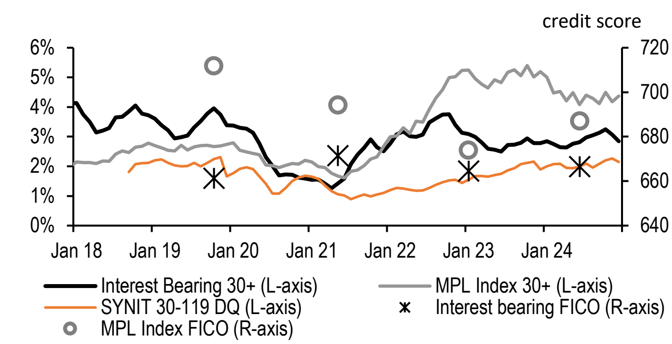
% of current balances



Note: 30-119 deliqnuenci for JPM card ABS index. Affirm (AFFRM) recognizes defaults or charge-offs at 120 days past due, while traditional bankcards typically do so at 180 days.
Source: J.P. Morgan, dv01, Company reports, ABS deal documents

Figure 127: 30+ delinquency deterioration for Affirm interest-bearing versus MPL

% of current balances



Source: J.P. Morgan, dv01, Company reports, ABS deal documents

Earlier this year, Affirm launched a new master trust program with the ticker AFRMT, with 2025-1 being the first ABS series issued. Unlike previous revolving issuances where receivables were designated to a specific trust, series within the same group across the master trust will now share a common collateral pool. As mentioned in SFVegas conference discussions, Affirm plans to access the ABS market 3-4 times a year through this newly formed master trust. In addition, Affirm will continue to offer a couple of X-type issuances, which are backed by ~2yr interest-bearing loans, in the usual discrete and static pool format. These will be de-consolidated and sold down to the residual tranches. The initial pool for AFRMT 2025-1 has a weighted average FICO score of 672, which is slightly weaker than most prior AFFRM ABS transactions. The weighted average interest rate is higher at 29.5%. Fitch's default rate assumption on AFRMT was 3.93% for the pool as of statistical cut off date and was 5% assuming the worse mix pool. The AFRMT 25-1 initial pool consisted of 5.2% split-pay, with a concentration limit set to 7.5%.

Given the robust credit performance trends, programmatic ABS issuances, subsequently higher stock/outstanding and liquidity build-up over time, there has been significant spread compression for AFFRM compared to traditional unsecured consumer MPL over the years. Nonetheless, with the recent spread widening, there remains some modest basis pickup compared to tier 1 benchmark MPL spreads (Figure 128). For example, recent TRACE

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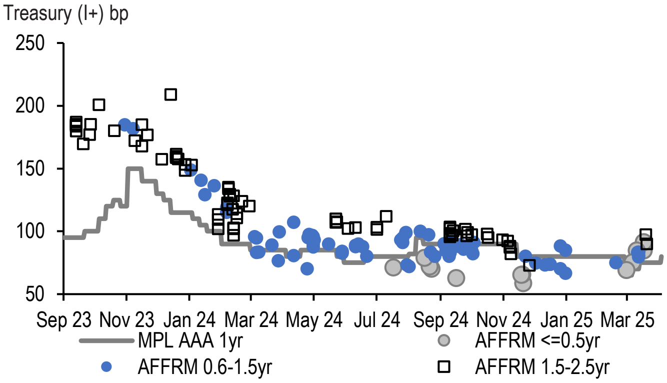
prints indicate AFFRM trades at I + 80-90 bp (0.6-year to 2.5-year WAL) versus SoFi's SCLP 25-1 (a tier 1 MPL program) AAA 1-year currently at I +80 bp. However, the spread differential is minimal at the bottom of the stack, with BBB AFFRM trading right on top of the benchmark at I +150 bp (Figure 129).

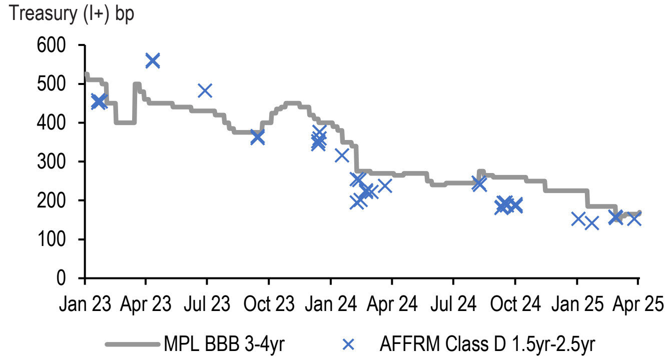
In addition to the underlying differences in the loan program (i.e., BNPL vs. MPL, lower average balance, shorter term, etc.), we note that SCLP/benchmark MPL have a very different borrower profile compared to Affirm. The SCLP 25-1 pool has a weighted average FICO score of 745 versus 672 for AFRMT 25-1, with interest rates at 13.42% versus 23.82%, respectively. Furthermore, MPL transactions are amortizing and sequential pay, and as such, the class A (AAA-rated tranche) has a WAL of approximately 1 year, and class D (BBB-rated) is 3-4 years, versus AFFRM pools with 2-year revolving periods and a bullet payment at the expected repayment date. There has also been less supply from programmatic MPL issuers. For instance, SoFi has been largely absent from the MPL ABS market since the pandemic, with AFFRM emerging as a programmatic ABS issuer, supported by robust GMV/originations growth, along with a newly launched master trust. MPL issuers are now expanding and further building on direct origination strategies, where they originate custom loans and sell them for a fixed fee or origination fee. This allows forward flow partners to contribute assets to the securitization programs, which should boost ABS volume in the future.

Figure 128: AFFRM mixed-pool AAA ABS spreads in line with indicative benchmark short AAA MPL print



Note: MPL AAA 1-year above based on our indicative benchmark (tier 1) spread series; AFFRM AAA spreads based on TRACE prints across 23-A, 23-B, 24-A and 24-B and AFRMT 25-1 transactions
Source: J.P. Morgan, FINRA-TRACE

Figure 129: AFFRM mixed-pool class D ABS spreads versus indicative benchmark BBB MPL print



Note: MPL AAA 1-year above based on our indicative benchmark (tier 1) spread series; AFFRM AAA spreads based on TRACE prints across 23-A, 23-B, 24-A and 24-B and AFRMT 25-1 transactions
Source: J.P. Morgan, FINRA-TRACE

In the current macro environment, we favor the short-term, low-dollar loan amount and low-dollar monthly payment profile of the AFFRM product. This allows more control over the credit outcome and subsequently robust credit trends, despite a more blended borrower credit profile. Additionally, alongside an expanding ABS investor base, Affirm has entered into several forward flow partnership agreements to support its rapid origination growth. JP Morgan's equity research analyst, as part of the last earnings recap report for Affirm, highlighted that Affirm is performing exceptionally well, delivering premium growth, improving profitability, and consistent credit performance, reiterating the overweight rating on the stock. For an ABS investor this should help reduce concerns around the seller/servicer risks in a new product line that has not been tested for a recession.

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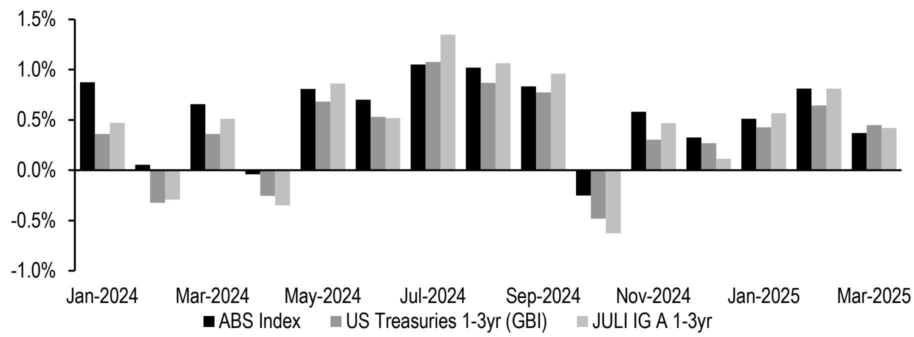
Week in review

Issuance activity in the primary market was muted this week as only 3 data center ABS transactions priced. March 2025 closed out with a supply of $30.8bn bringing the year-to-date ABS supply to $89.0bn compared to $91.8bn same time last year. April 2024 saw $25.2bn in supply. Our indicative benchmark spreads widened by 2bp across the board except unsecured consumer and subprime auto ABS, which widened by 5bp, and student loan ABS that remained unchanged.

We highlight an update by our auto credit research team on tariff impacts that concluded reciprocal tariffs are neutral for the industry and better than feared for GM, Ford and Stellantis.

We published our monthly ABS Index Monitor on April 1st. Of note, for March, auto ABS subordinates and FFELP ABS led with +0.53% and +0.48% return on the month, respectively, outperforming comparable Treasury (1-3 year) and JULI single-A (1-3year) indices at +0.45% and +0.42%, respectively. March return for the total ABS index was 0.37% (Figure 130). On the year, our ABS index returned 1.7% through 1Q25 versus 1.53% on Treasury and 1.8% on the JULI indices.

Figure 130: Monthly returns on ABS versus Treasury and corporate indices



Source: J.P. Morgan

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Data appendix

Figure 131: ABS supply

$bn

	2021	2022	2023	2024	2024 YTD	2025 YTD
Credit Cards	17	32	23	19	6.4	3.7
Bank/Charge	*17*	*30*	*21*	*17*	*5.6*	*2.9*
Retail	*0*	*2*	*2*	*3*	*0.8*	*0.8*
Autos	132	110	146	163	53.4	49.2
Prime Loan	*50*	*50*	*73*	*77*	*25.6*	*22.3*
Non-prime Loan	*43*	*33*	*34*	*40*	*11.5*	*14.0*
Lease	*27*	*16*	*23*	*30*	*11.7*	*9.1*
Fleet & other	*13*	*11*	*16*	*16*	*4.6*	*3.9*
Student Loans	26	7	7	8	2.1	1.6
FFELP	*8*	*0*	*0*	*1*	*0.0*	*0.0*
Private Credit	*18*	*7*	*7*	*8*	*2.1*	*1.6*
Equipment	19	22	21	26	7.2	8.6
Floorplan	1	1	4	8	2.9	1.1
Unsecured Consumer	17	16	14	20	4.2	7.4
MPL	*8*	*9*	*8*	*7*	*2.1*	*3.9*
Branch & other	*9*	*7*	*7*	*13*	*2.1*	*3.5*
Other	55	56	41	66	15.7	17.3
Total ABS	267	244	256	312	91.8	89.0
% 144A	61%	50%	56%	62%	61%	60%
% Floating-rate	5%	4%	7%	8%	9%	7%

Source: J.P. Morgan.

Figure 132: Other ABS supply

$bn

	2021	2022	2023	2024	2024 YTD	2025 YTD
Data Center	6.2	1.0	5.9	8.4	2.4	4.7
Aircraft	8.5	1.1	0.7	5.5	-	2.5
Fiber	1.3	1.2	4.0	4.3	2.1	2.2
Device Payment	3.1	5.3	4.5	7.9	2.4	3.1
Stranded Ast	2.3	21.2	7.8	4.3	1.9	1.1
Solar	3.2	4.0	4.2	4.9	0.9	0.9
Insurance	1.1	2.3	2.4	2.2	1.2	0.8
Timeshare	2.4	2.6	2.5	3.8	1.2	0.6
SBL	1.0	1.7	1.1	1.1	0.4	0.6
Franchise/Whole Bus.	13.7	6.6	1.7	11.5	1.5	0.1
Taxes	0.5	0.1	0.3	0.5	0.1	0.1
Healthcare		0.4	0.4	0.3	0.3	0.0
PACE	0.8	0.5	0.7	0.4	0.3	0.0
Containers	5.6	0.8	0.3	1.7	0.4	0.0
Railcar	2.8	0.9	0.2	1.0	-	0.4
Trade Rec.	0.3			0.5	-	0.0
Miscellaneous	2.3	6.3	4.1	8.0	0.6	0.3
Total Other ABS	55.2	56.0	40.8	66.4	15.7	17.3

Source: J.P. Morgan.

Figure 133: ABS spread performance

bp

	Benchmark	Current	1-week		10-week	
		4/3/2025	Change	Avg	Min	Max
Credit Card - Fixed Rate						
2-yr AAA	Treasury	38	2	33	32	38
3-yr AAA	Treasury	43	2	36	34	43
5-yr AAA	Treasury	53	2	47	45	53
10-yr AAA	Treasury	76	2	70	68	76
B-Piece (5-yr)	Treasury	86	2	80	78	86
C-Piece (5-yr)	Treasury	129	2	122	120	129
Credit Card - Floating Rate						
2-yr AAA	SOFR	40	2	35	34	40
3-yr AAA	SOFR	45	2	38	36	45
5-yr AAA	SOFR	55	2	49	47	55
10-yr AAA	SOFR	78	2	72	70	78
B-Piece (5-yr)	SOFR	91	2	85	83	91
C-Piece (5-yr)	SOFR	134	2	127	125	134
Auto - Prime						
1-yr AAA	Treasury	38	2	33	30	38
2-yr AAA	Treasury	48	2	41	38	48
3-yr AAA	Treasury	52	2	47	43	52
3-yr AA	Treasury	79	2	73	70	79
Student Loans (FFELP)						
3-yr AAA	SOFR	100	0	98	95	100
7-yr AAA	SOFR	110	0	108	105	115
Private Credit Student Loan						
3-yr AAA	SOFR	100	0	97	95	100
Unsecured Consumer MPL						
1-yr AAA	Treasury	80	5	76	65	80
3-yr AA	Treasury	105	5	99	90	105
3-4yr A	Treasury	135	5	124	120	135
3-4yr BBB	Treasury	170	5	173	150	185
3-4yr BB	Treasury	370	5	368	350	375
Auto - Subprime						
1-yr AAA	Treasury	67	5	54	50	67
2-yr AAA	Treasury	72	5	60	55	72
3-yr AA	Treasury	85	5	70	63	85
3-yr A	Treasury	100	5	83	75	100
3-yr BBB	Treasury	135	5	118	110	135
3-yr BB	Treasury	340	5	319	310	340

Source: J.P. Morgan.

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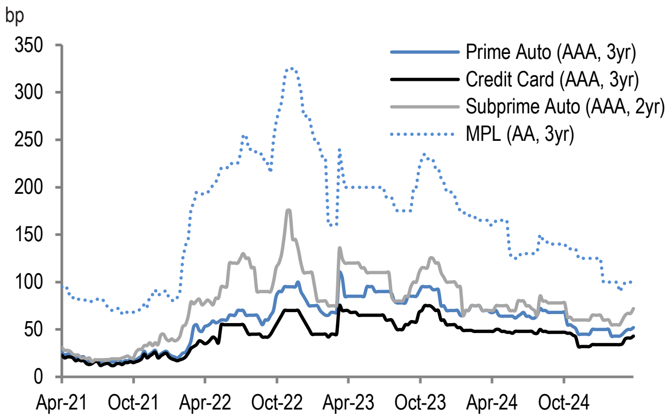
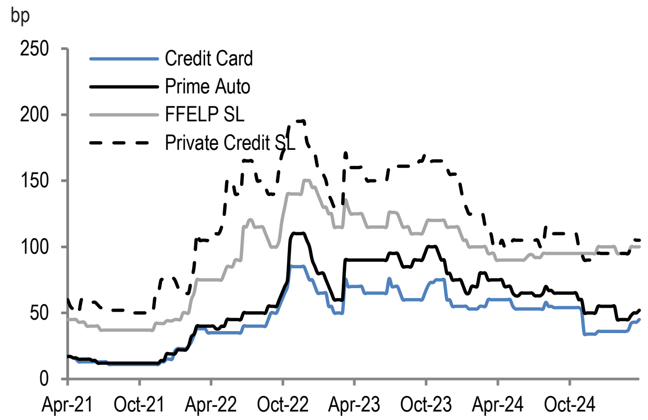
Figure 134: Fixed-rate AAA ABS (3-year) spreads to Treasury



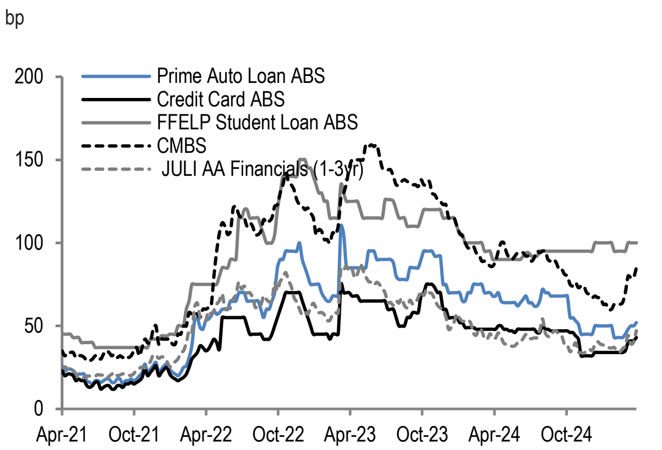
Source: J.P. Morgan.

Figure 135: Floating-rate AAA ABS (3-year) spreads to SOFR



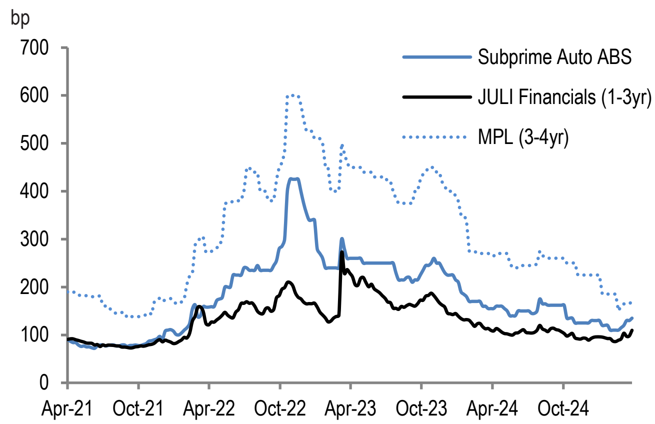
Source: J.P. Morgan. Note: Spreads to LIBOR till June 29, 2023 and to SOFR since then.

Figure 136: AAA cross sector spreads (3-year) to Treasury/SOFR



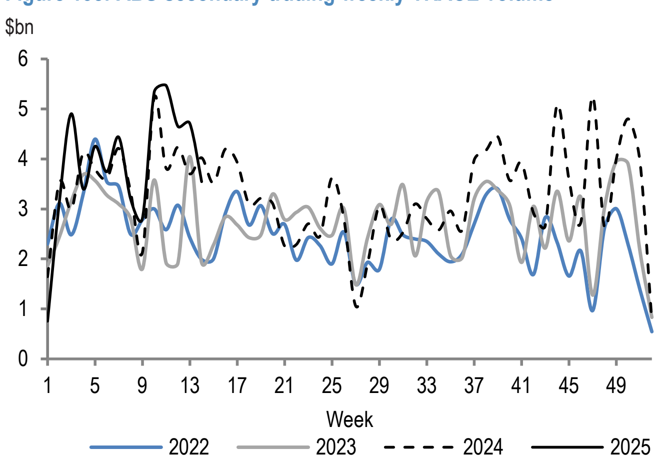
Source: J.P. Morgan. Note: FFELP Student Loan ABS spread to LIBOR till June 29, 2023 an to SOFR since then.

Figure 137: BBB subprime auto ABS (3-year) and MPL unsecured consumer ABS (3-4year) vs. BBB financials to Treasury



Source: J.P. Morgan.

Figure 138: ABS secondary trading weekly TRACE volume



Source: J.P. Morgan, TRACE

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Corporates

- We underestimated the magnitude of tariffs unveiled on Wednesday by the Trump administration. Most markets did as well, given the size of the stock and rate sell-off on Thursday. Our economists believe that these tariffs, if fully implemented, may push the US and global economy into recession this year. We cannot ignore this rising risk and are thus **shifting our JULI target 35bp wider to 125bp**. That said, **JULI has typically reached north of 160bp in a traditional recession (ex-2008 and 2020) and our new forecast is well below this**. This is because there are several key uncertainties and issues that suggest a sharp sell-off is unlikely from current levels:
- **Where will tariff rates be in 2025?** The recent announcements on tariffs are unlikely to be final and may go lower or higher. We also await tariff decisions on several sectors not yet impacted (Pharma and Semiconductors).
- **Even with these tariffs will there be a recession?** In 2022 when the Fed raised rates there were widespread expectations of a recession. These proved to be too pessimistic. That said, there is little precedent for the sudden implementation of tariffs at such high levels, uncertainty on the Fed response and the fiscal position that will be implemented - we may get a large fiscal boost (tax cuts) to offset some of the negative economic impacts from the tariffs. Finally, energy prices haven fallen sharply and lower energy costs could also be an important offset to inflationary headwinds from tariffs if they persist.
- **Even if there is a recession will spreads widen to prior recessionary levels?** We believe not. First, credit fundamentals enter this period of uncertainty from a strong position with BBB- share of our HG index at a record low. Second, all-in yields are still well above 5% and should remain so out the curve if the inflationary impacts of tariffs are offset by fiscal expansionism (tax cuts). Domestic fund flows should remain resilient though the foreign demand side is likely to get more negative from here though. Supply should also fall if capex is going to slow materially, raising the chance of negative net supply especially near term as we are in the midst of peak maturity season for 2025.

Everything is on the table now, including a recession - shifting JULI target 35bp wider to 125bp

We underestimated the magnitude of tariffs unveiled on Wednesday by the Trump administration. Most markets did as well given the size of the stock and rate sell-off on Thursday. Our economists believe these tariffs if fully implemented may push the US and global economy into recession this year. We cannot ignore this rising risk and are thus shifting our JULI target 35bp wider to 125bp, calling for wider spreads overall for the first time since Q4 2022. That said, JULI has typically reached north of 160bp in a traditional recession (ex-2008 and 2020) and our new forecast is well below this, and not much wider than the current level. This is because there are several key uncertainties and issues that suggest a sharp sell-off is unlikely from current levels:

a) **Where will tariff rates be in 2025?** The Wednesday White House announcements on tariffs are unlikely to be the final word. They may go lower as countries offer concessions or the Administration reconsiders or provides exemptions at the request of importers and their political representatives. Tariffs may also go higher when/if countries implement retaliatory tariffs. President Trump promised to raise tariff rates on countries who do retaliate and

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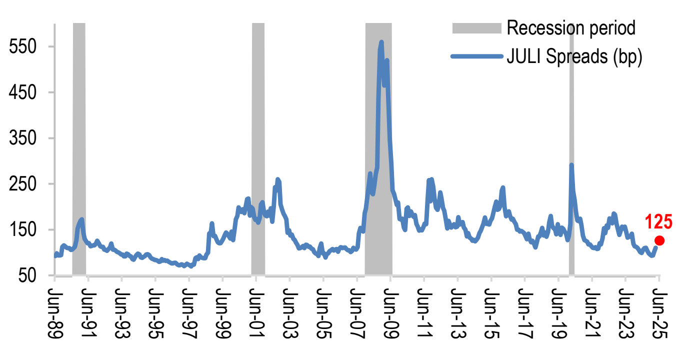
the EU and China publicly indicated they were considering this response. We also await tariff decisions on several sectors not yet impacted including pharmaceuticals and semiconductors.

b) **Even with these tariffs will there be a recession?** In 2022 when the Fed raised rates there were widespread expectations that tighter monetary policy would tip the economy into recession. These proved to be too pessimistic and the economy performed quite well, adapting to higher rates with little disruption. There is little precedent for the sudden implementation of tariffs at the high levels announced on Wednesday from which to draw conclusions as to how the economy will respond. Economic sentiment indicators were already quite negative before the latest tariff announcements while the actual economic data is holding up well. We also do know know how the Fed will respond. The market is pricing in nearly 4x rate cuts in 2025 now so the messaging from the Fed over the coming weeks will be important. Also we do not know the fiscal position that will be implemented - we may get a large fiscal boost (tax cuts) to offset some of the negative economic impacts from the tariffs. Finally, energy prices fell sharply after the announcement, in part due to a larger than expected production increase from OPEC. Lower energy costs could also be an important offset to inflationary headwinds from tariffs if they persist.

c) **Even if there is a recession will spreads widen to prior recessionary levels?** We believe no, for several reasons. First, credit fundamentals enter this period of uncertainty from a strong position. One piece of evidence for this is that the BBB- share of our HG index represents 8.6% of it today, the lowest on record. Second, all-in yields are still well above 5% and should remain so out the curve if the inflationary impacts of tariffs are offset by fiscal expansionism (tax cuts). Domestic fund flows should remain resilient as total returns are unlikely to dip materially given the rally in rates (YTD, JULI is up 2.6%). The foreign demand side is likely to get more negative from here though, as BoJ rate hikes are likely off the table for now and its not impossible to think retaliatory measures could lead to curtailed demand from certain countries. The only offset is a higher likelihood of lower EUR hedging costs as Fed cuts get priced back into markets (earlier and larger). Supply should also fall if capex is going to slow materially, raising the chance of negative net supply especially near term as we are in the midst of peak maturity season for 2025.

The net of all the changes over the past 24 hours is clearly negative but uncertainties in both directions are at a fresh YTD high - this warrants a moderately wider spread forecast of 125bp.

Figure 139: We forecast JULI spreads to end 2025 at 125bp



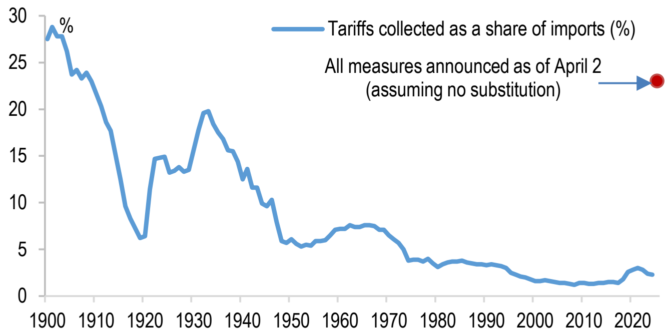
Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 140: JULI has typically reached north of 160bp in a traditional recession and our new forecast is well below this

Recessionary Period	Avg Monthly JULI Spd
Feb 2020 - Apr 2020	229
Dec 2007 - Jun 2009	358
Mar 2001 - Nov 2001	185
Jul 1990 - Mar 1991	142
All recessionary periods	**261**
All ex-2008, 2020	**163**

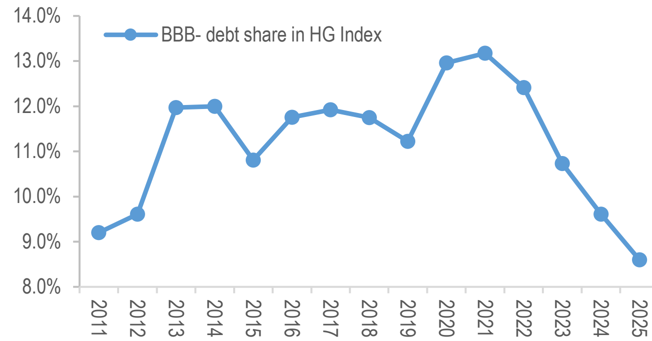
Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 141: The average effective tariff rate will go from what had been prior to Wednesday's announcement of around 10% to just over 23%



Source: J.P. Morgan, US ITC, Census Bureau

Figure 142: BBB- debt share at 8.6% is a record low



Source: J.P. Morgan.

Unexpectedly high Liberation Day tariffs raise recession risks

The message from both our global and US economics in their initial takeaways here and here is starkly negative. On the global side, their conclusion is: "We are not making immediate changes to our forecasts and want to see the implementation and negotiation process that takes hold in the coming days. However, we view the full implementation of these policies as a substantial macro economic shock not currently incorporated in our forecasts. This shock will likely be magnified by its impact on sentiment and through the retaliation of countries facing significant increases in their tariff rates. We thus emphasize that these policies, if sustained, would likely push the US and global economy into recession this year."

And on the US economics side: "On a static basis, today's announcement would raise just under $400bn in revenue, or about 1.3% of GDP, which would be the largest tax increase since the Revenue Act of 1968. We estimate that today's announced measures could boost PCE prices by 1-1.5% this year, and we believe the inflationary effects would mostly be realized in the middle quarters of the year. The resulting hit to purchasing power could take real disposable personal income growth in 2Q-3Q into negative territory, and with it the risk that real consumer spending could also contract in those quarters. This impact alone could take the economy perilously close to slipping into recession. We plan to revisit our forecast later this week."

Automotive Sector Tariffs

Annex 1 – Timing: On Wednesday, April 2nd, the administration released Annex 1 (here) to the Proclamation and Fact Sheet from President Trump entitled "Adjusting Imports of Automobiles and Automobile Parts into the United States." Critically, our read of Annex 1, which enumerates the parts codes under the Harmonized Tariff Schedule of the United States (HTSUS) that are subject to 25% tariffs, excludes USMCA compliant parts from the proposed 25% tariffs **indefinitely.** We believe this is a **positive change** from the plain reading of the Executive Order, which had said that tariffs would not apply to USMCA compliant parts "until the Secretary, in consultation with CBP, establishes a process to apply the tariff exclusively to the value of the non-U.S. content of such automobile parts and publishes notice in the Federal Register." Said differently, we believe Annex 1 serves to exclude all eligible USMCA parts content indefinitely, thereby broadening the content that will not be subject to tariffs in the near to intermediate term, and limiting the amount of vehicle content that will be subject to the tariffs. For example, adding Mexico to the 25% auto part tariff exemptions is a meaningful benefit for Ford based on NHTSA disclosures (we calculate over $600 million of annual savings compared with our previous assumptions) and GM

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(over $1.9 billion of savings over our previous assumptions) based on their U.S. produced vehicles. This could result in auto parts tariff costs being more manageable for the D3 dependent on the level of content that is originated in the U.S. but then exported to Canada/Mexico for further content addition before being imported back to the U.S. (likely maintaining USMCA compliance). **Further, this scenario of prolonged USMCA compliance exemptions could lead to the D3's total tariff impact just being finished vehicle imports, which when combined with the USMCA compliance savings on finished vehicle imports only tariffed on non-U.S. content, would result in even lower tariffs than our original estimates or under $1 billion for Ford and just over $2.7 billion for GM, both of which we view as much more digestible.**

Annex 1 – Parts in Scope: Beyond the delay in implementation of tariffs on USMCA compliant parts, Annex 1 also provided a list of automotive components that is significantly broader in scope than what was released in the Proclamation, which only spoke to "certain automobile parts (engines and engine parts, transmissions and powertrain parts, and electrical components)," and what was similarly written in the Fact Sheet, which termed these same items "key automobile parts." Specifically, Annex 1 by our read includes many parts and components that we initially thought might be excluded from the key parts of 'engine, transmissions, and electrical components,' including seats, tires, and windows, to name but three categories. The more expansive list of HTSUS eligible parts from Annex 1 is a negative and suggests a greater tariff burden on more suppliers (and likely OEMs) beginning on May 3rd than initially anticipated. While USMCA compliant parts will not initially be subject to the 25% levies, which is a positive, all the parts codes listed would be subject to tariffs upon import from all other non-USMCA countries. In tables below we highlight HTSUS codes included in Annex 1 that are subject to the 25% auto parts tariff (for non-USMCA compliant parts) and our estimates of High Grade and High Yield Auto Supplier exposure.

Reciprocal Tariffs – Not Incremental: Following the market close on Wednesday, April 2nd, President Trump hosted a press conference in which he announced reciprocal tariffs and posted the Executive Order "Regulating Imports with a Reciprocal Tariff to Rectify Trade Practices that Contribute to Large and Persistent Annual United States Goods Trade Deficits" (here) and Fact Sheet (here) after the event. For Canada and Mexico, the Fact Sheet referenced that USMCA compliant goods will continue to see a 0% tariff and non-USMCA compliant goods will experience a 25% tariff (if the IEEPA orders are terminated regarding fentanyl/migration then non-USMCA compliant goods would be subject to a 12% reciprocal tariff). Under Section 3 of the Executive Order, it states that the reciprocal tariffs do not include "all automobiles and automotive parts subject to the additional duties imposed pursuant to section 232 of the Trade Expansion Act of 1962, as amended, and proclaimed in Proclamation 10908 of March 26, 2025 (Adjusting Imports of Automobiles and Automobile Parts Into the United States)" and are not additive to the previous steel/aluminum tariffs. **This makes the announced reciprocal tariffs a non-event for the domestic automotive sector, in our view, which is better than some market participant fears that reciprocal tariffs would be on top of the already announced 25% auto tariffs.**

Side Letters Could Lead to Legal Challenges: In addition, we thought it would be worth highlighting that the side letters associated with the 2018 USMCA negotiations (see here) include agreements between the U.S. and Mexico/Canada to not adopt a measure imposing tariffs/import restrictions on the goods/services of Mexico or Canada under section 232 of the *Trade Expansion Act of 1962* for at least 60 days. Thereafter, the agreements stipulate that the U.S. shall exclude a certain amount of light vehicles (2.6 million from each of Mexico and Canada annually v. 2.96 million imported from Mexico in 2024, 1.07 million from Canada) and auto parts ($108 billion annually for Mexico v. $81 billion 2024 imports, $32.4

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billion annually for Canada v. $31.1 billion 2024 imports) from tariffs. The language in the agreements suggests Mexico and Canada could dispute the recently announced section 232 tariffs, or for Mexico/Canada to use their WTO rights to challenge the Section 232 measure, although it remains unclear to us if the agreements are still effective/enforceable and if the ultimate outcome will just lead to a renegotiation of the USMCA (which is already up for renegotiation in mid-2026).

We believe our reading of Annex 1, if accurate, is a positive (i.e., less onerous) for the U.S./Mexico/Canada Automotive ecosystem in general and positive for the domestic OEMs (GM, Ford, Stellantis) in addition to those suppliers that generate a meaningful portion of their sales within the USMCA. That said, we do not want to rule out that the Trump administration could file an amendment or additional heading/subheading to Annex 1 to subject the USMCA-compliant parts to 25% auto tariffs, potentially when they "establish a process to apply the tariff exclusively to the value of the non-U.S. content of such automobile parts." In the meantime, we do not see a deadline disclosed to include the non-U.S. content of USMCA compliant parts under the 25% auto parts import tariffs, with the May 3rd date originally referenced in last week's Executive Order signifying the commencement of auto part tariffs (25% tariffs on non-USMCA compliant auto parts) rather than when USMCA-compliant parts will be subject to 25% tariffs (which could be an interpretation of the EO). Separately, the reciprocal tariff announcement excludes all automobiles and auto parts subject to last Wednesday's announcement, which we also interpret as a "better-than-feared" outcome.

Our broad takeaways from the Annex 1 publication and reciprocal tariffs announcements were better than feared and generally neutral for the automotive ecosystem, and slightly positive for the D3 and many of their parts suppliers given the continued focus on exemptions for USMCA compliant imports. For IG Autos, we highlighted our Overweight on GM yesterday following recent widening with both cash and CDS looking attractive, in our view. Within HY Autos, we continue to recommend Overweight Carvana, which though not immune should benefit from higher used volumes.

Please see our credit research team's Investment Grade and High Yield Automotive for more details.

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Table 1: U.S. Auto Supplier Tariff Exposure

Car Part	Primary IG Suppliers	Primary HY Suppliers	HTS Code(s)
Axles / Driveshafts		BENTLR, DAN	8708.5, 8708.99.68
Chassis / Body	MGCN	BENTLR, ZFFNGR, JBPOIN	8706, 8707 8708.5
Engine Components / Tranmissons	BWA, CMI	ALSN, SHAEFF ZFFNGR	8407, 8408, 8501, 8483.10.30
Fuel Injection		PHIN	8413.30.10.00
Batteries		POWSOL	8507.10.00, 8507.60.00
Seats	LEA, MGCN	ADNT	9401.20.00
Suspension		TEN, ZFFNGR	8708.8
Tires		GT	4011, 4012, 4013
Turbochargers	BWA	GTX	8414.59.30.00
Aftermarket / Misc.	LKQ	BELRON, CALCOL CRASHC	8512.40.40, 8708.10.60, 8708.10.30, 4011, 4012, 4013

Source: Federal Register, company reports, J.P. Morgan.

Table 2: High Grade Auto Supplier Geographic Exposure

	2024 Revenue Exposure					
Company	China	Asia	Europe/EMEA	Mexico	Canada	Notes
APTV	N/A	29.0%	32.9%	N/A	N/A	Asia Pacific - primarily attributable to China, "Other North America" was 1.1% of revenue
BWA	20.3%	33.5%	37.2%	11.7%	0.0%	
CMI	8.6%	13.9%	N/A	N/A	N/A	Asia revenue % includes China and India revenue, "Other international" was 29.2% of revenue
LEA	12.7%	18.8%	35.6%	N/A	N/A	
LKQ	N/A	N/A	44.6%	N/A	N/A	
MGCN	13.0%	14.2%	36.5%	12.5%	10.1%	
NIPDES	N/A	23.7%	9.9%	N/A	N/A	FY24 revenue data (ended March 31, 2024), North America was 24.4% of revenue

Source: Company reports.

Technology, Media, and Telecom Sector Tariffs

The Trump Administration announced its much anticipated reciprocal tariff action last night (see Fact Sheet), inclusive of a 10% baseline and significantly higher figures on many nations. While Semiconductors are not subject to this set of reciprocal tariffs, we see it as only a matter of time until more granular and targeted tariffs come into effect on chips, as the President has repeatedly guided. We also found it particularly relevant that the Administration imposed significant levies (24-49%) on many of the South and Southeast Asian nations where many Hardware issuers (Apple most notably) have shifted their manufactur-

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ing footprints to in recent years in an attempt to reduce perceived China risk. Taken together, we see Hardware names as the most impacted right now, inclusive of DELL, HPQ (9% of PP&E in Malaysia), AAPL, CSCO, and HPE. We are less concerned for GLW and MSI, and while most price hikes will be passed along by the distributors (ARW/AVT/SNX/CDW), we expect any pause or reduction in activity to impair them too. Our Hardware equity counterparts put out a great note here. On the Semiconductors side, we expect tariff actions to weigh on what has been a tenuous end market recovery in most end markets (our latest here), even before actual chip tariffs come into effect. This should impact nearly everyone in the space, although we acknowledge that balance sheet health and good inventory management across most names (ex MCHP, which also has 11% of PP&E in Thailand) should offer some insulation. We are also of the view that tariffs have a complementary impact to the CHIPS Act as it pertains to the chip on-shoring initiative, with CHIPS Act incentives leveling the playing field for build costs (at least via the ITC, even if grants are slowed or stopped) but tariffs actually encouraging designers to partner with domestic foundries. Our regular readers will not be surprised to see us viewing Foundry JV positively in this light, and we acknowledge that other domestic builders (MU and TXN) should be seeing some relief after recent CHIPS Act-related fears. Outside of Tech, we expect tariff impacts to spending and the overall economy should only compound recently rising fears about Media ad spend, which will weigh on WBD, Paramount, Fox, Disney, Omnicom, and IPG. Conversely, we view US Telecoms and Cable, Software, and EuroTels as pockets of relative safety. This all remains subject to change and we expect nation-by-nation negotiations to keep these figures fluid, but Hardware and Semis will remain in-focus here nonetheless.

Please see our credit research team's For Whom the Trump Tolls for more details.

Consumer / Retail Sector Tariffs

The credit research team published HG & HY Consumer / Retail: Tariffs don't feel all that liberating this morning:

Tariffs are not very liberating - rather we see the biggest negative of sweeping tariffs on our trading partners as a tax on the consumer that will pressure spending, confidence, and therefore earnings and cash flow across Consumer & Retail, with the biggest impact on big-ticket discretionary (goods as well as home projects likely impacted), with less impact on those businesses with pricing power (auto parts, luxury), and a bit more respite for domestic-heavy food, supermarkets, and defensive quick service restaurants. We are expanding on our most recent tariff update (Feb 28, Uncertainty around the new tariff in town), after Trump announced his "liberation day" tariff levels. Across Consumer and Retail, the most important sourcing countries are China (electronics, parts, housewares, crafts, toys and some apparel/footwear), Vietnam & Cambodia (apparel/footwear). Given the sweeping nature of the tariffs, retailers and manufacturers will have to pass on at least some of the added cost to the consumer. This keeps us cautious on Retail & Consumer (both UW), as we see downside risk as companies and consumers absorb near-term tariff headwinds. In our last tariff update, we highlighted the most and least (food/bev) exposed to Chinese tariffs.

- **Chinese** reciprocal tariffs of 34% will be on top of the 20% blanket import announced a few weeks ago. The most impacted retailers from greater China tariffs remain the same we have discussed in the past. Where we have the % of COGS we show this metric, but in many cases companies have only discussed the % of goods imported from China (or other country). From our conversations with management teams, we believe the % of COGS is typically 30-50% less than the % of goods, and in some cases considerably less if they are more globally diversified (i.e. less US centric).

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- **BBY** (60% of COGS).
- **Auto Parts** AZO, ORLY, GPC, AAP, but they have greater pricing power to offset.
- **Sporting goods:** both DKS and ASO = 30% of COGS range.
- **MIK** (~25% of COGS or ~60% of goods); management noted that its reduced its exposure to China direct sourcing over the past few years and continues to do so. See our latest note here: *2025 calls for a Party and a Sewing Circle.*
- **TGT** sources 20% of COGS from China.
- **Toy makers -** HAS/MAT source~50% of US products come from China, but also sell worldwide, so the COGS percent is likely <20%.
- **Vietnam and Cambodia (as well as other SE Asia) tariffs will impact apparel/footwear.** These countries stand out in the list of Reciprocal tariffs, with Vietnam at 49% and Cambodia 46%. After the last round of tariffs (2018-2019), much of apparel and footwear sourcing was shifted from China to these countries.
- **CRI** commented that in FY24 ~75% of product was sourced from Vietnam, Cambodia, Bangladesh and India, with the majority of fabric coming from China (60%) with the remainder from Vietnam, Thailand, and Bangladesh.
- **GAP**'s 2 largest sourcing partners are Vietnam (27% of purchases) and Indonesia (29%).
- **HBI** sources globally, across Asia, Central America, and the Caribbean Basin, with 75% in company operated or dedicated facilities. While it does not release the % from each country, it called out Vietnam, Thailand and Honduras during the last quarterly call.
- **VSCO** gets a "large majority" of its product from Vietnam, Sri Lanka, and Indonesia.
- **TPR** sources the majority of Kate Spade & Coach from Vietnam, Cambodia, the Philippines, China, and India.
- **WWW** primarily sources from Asia Pacific, with 9 factories in Vietnam that account for 53% of supply, followed by China, Cambodia, Bangladesh, and India.

Outside of apparel/footwear, **PII** recently expanded its sourcing (bike assembly and engines) from Vietnam and Canada.

Figure 143: Liberation day tariff levels & % of imports coming from each country to the US

Country	Reciprocal tariff	% of imports
Cambodia	49%	<1%
Vietnam	46%	4.2%
Sri Lanka	44%	<1%
China	34%	13.4%
Taiwan	32%	3.6%
Indonesia	32%	<1%
India	26%	2.7%
South Korea	25%	4.0%
Japan	24%	4.5%
Malaysia	24%	1.6%
EU	20%	18.5%
Jordan	20%	<1%
UK	10%	<1%

Source: White House, Observatory of Economic Complexity

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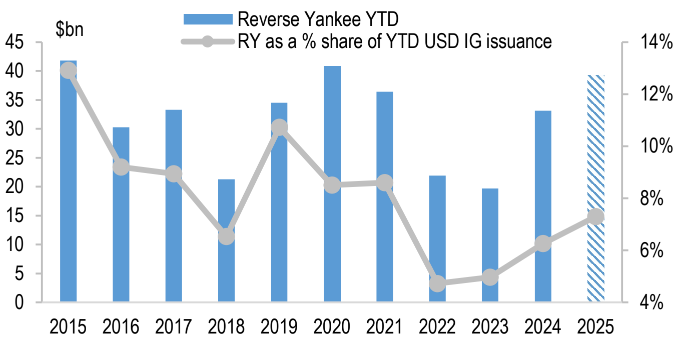
March and 1Q25: Trends in issuance across HG, HY, Loans and CLOs

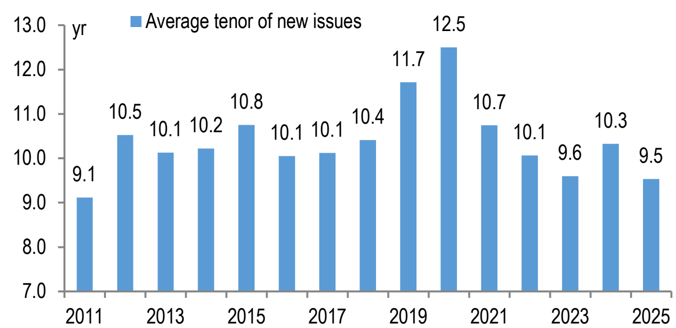
1Q HG bond supply was a new quarterly record at $539bn, up 2% y/y. However, there were several offsets to this such that we believe supply trends were a technical positive in 1Q compared to the prior year, and will be more so for the rest of the year. First, bond maturities were 22% higher y/y such that net supply was down 14% y/y ($42bn). Second, coupons were 11% higher y/y ($12bn). Third, the average maturity of issuance YTD is 9.5yrs. This is the lowest since 2011 (comparing 1Q25 with full years prior), Fourth, Reverse Yankee issuance $39bn, the highest since 2020 and 7.3% of supply (the highest in four years) as issuers tap cheaper markets, primarily in Euro. This trend is likely to continue given the persistence of tighter spreads in Euro at the start of 2Q. Looking forward we are 53% towards our full year net supply forecast as maturities remain high for the coming months. In 2Q25 $320bn of bonds mature, $46.6bn (17%) more than in 1Q25 – while gross supply is likely to be down q/q.

Figure 144: Reverse Yankee issuance rose in both $ and % share terms on a YTD basis, to the highest since 2020



Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 145: Average tenor YTD is 9.3yrs, lower than the average tenor of 10.3yrs and 9.6yrs in 2024 and 2023



Source: J.P. Morgan, Dealogic.

High Grade issuance in March totaled $194bn, up 15% versus the prior 4 year average of $168bn. 1Q25 supply totalled $539bn, a new record for Q1. This is up 2% YoY and 36% of the way towards our FY25 forecast of $1.5tr. Maturities last month totaled $106bn, a record high for March which led to a net issuance of $87bn. 1Q25 net supply totals $265bn, down 14% YoY. Looking forward, issuance in April has averaged $97bn over the past 4 years. Further, we estimate April to be the largest month of maturities for 2025 at $122bn which implies that the trend of underwhelming net issuance is likely to persist near-term. In 1Q25, Financials supply was $214bn and Non-Financials supply was $324bn. Floater issuance in 1Q25 was $44bn or 8.2% of the total supply. This is the highest in $ terms since 3Q18 and 1.9x versus 1Q24 despite similar total supply. Reverse Yankee supply was $39bn in 1Q25 which is the heaviest for 1Q since 2020 in $ terms and 7.3% of total USD IG gross supply. M&A funding in HG markets rose in March with $50bn issued, up 3x MoM and the highest since Feb'24. YTD M&A funding is $71bn, down 4% y/y.

High yield issuance rose to a 5m high with $27bn ($6bn ex-refi) in March. 1Q25 gross issuance of $68bn is down -22% yoy ($88bn), while net volume of $17bn (ex-refi) in 1Q25 is up +14% y/y.

Leveraged loan issuance was at the lowest since August in March with $57bn ($19bn ex refi/repricing). 1Q25 issuance totals $337bn which includes $182bn of repricing (54%), $94bn of refinancing (28%), and $61bn of non-refi/repricing (18%) and compares to

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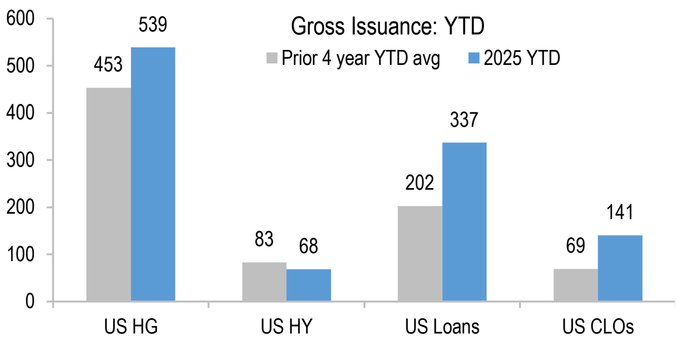
$318bn gross (+6% y/y) and $38bn net (+59% y/y) in 1Q24. 1Q was the heaviest net issuance since 1Q22.

US CLO gross supply in March was $49bn (36/$16bn new and 67/$33bn refi/reset/re-issue), a record for both gross and new issuance. YTD gross supply of $141bn (+63% YoY) is also at a record pace, with 32% new issuance and 68% refi/reset issuance.

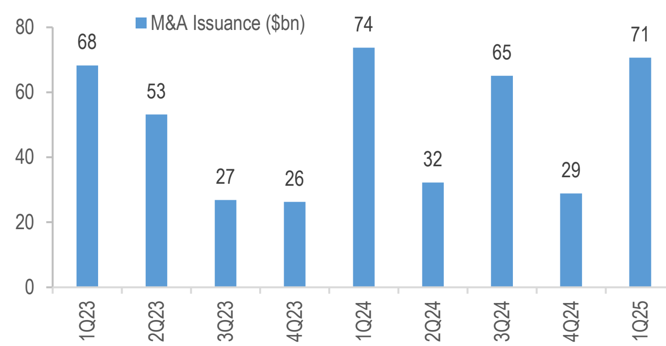
Please see our US Corporate Credit Issuance Review: March and 1Q25 for more details.

Figure 146: YTD supply is ahead of prior 4y averages across all markets ex-HY



Source: J.P. Morgan, Dealogic.

Figure 147: 1Q25 M&A related US HG issuance rose to $71bn, a four-quarter high



Source: J.P. Morgan, Dealogic.

Autos at widest since mid-2020 vs. JULI, while Pharma has outperformed

As per relative valuations the move in Autos vs. Pharma seems extreme in our view. YTD, JULI is 18bp wider with Autos the worst performing major sector at 36bp wider whereas Pharma is just 12bp wider. Thus the spread gap between the two sectors is now 52bp or the widest since December 2023 and Autos is trading at its widest vs. the index since July 2020. From a spread breakeven standpoint, which we believe is the right valuation metric given the still significant uncertainties, Auto spreads would need to widen another 35bp to wipe out 12m forward excess returns. While not impossible, this would take the sector to levels concurrent to where BBs were trading as recently as late February; we don't believe any of the large automakers are likely to get downgraded to HY in the coming months.

There is still uncertainties on the treatment of parts and USMCA carve-outs but we believe select OEMs can weather the storm. In the negative scenario where announcements on reciprocal tariffs is just the opening salvo in a wider trade war involving many more sectors than Autos, Pharma doesn't appear particularly well positioned from a macro standpoint given the large portion of revenues derived in the US versus significant portion of active pharmaceutical ingredients imported (especially from countries likely to be a focus of reciprocal tariffs such as India). As well, the sector could be facing other political headwinds from the ongoing HHS revamp and any potential changes to corporate taxation given the sector pays a lower rate of 16% on average as per JPM equity research (see here). With a spread breakeven of just 10bp the sector could underperform even while remaining one of the tighter trading sectors within the index. The key risk to our view is a wider beta sell-off (e.g. Recession) where Pharma retains its HQ bias and Autos face downgrades to HY. Inside, we highlight a few single name ideas across bonds and CDS, as well as a liquid basket for each sector.

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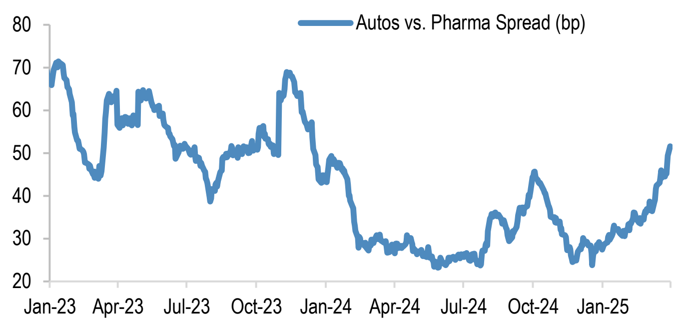
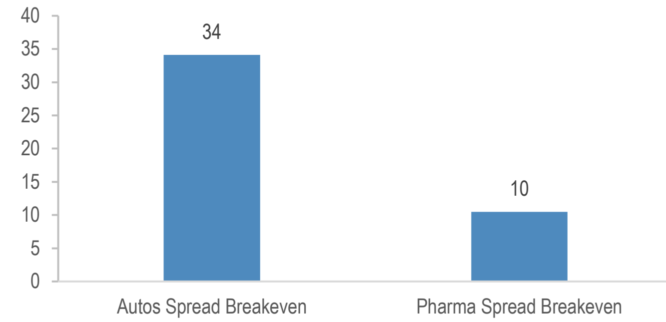
Please see our Tariff Day Trade Idea: Long Autos, with Pharma as a hedge for more details.

Figure 148: Autos have widened significantly vs. Pharma



Note: Autos duration 4.11yrs vs. Pharma 8.46 yrs
Source: J.P. Morgan.

Figure 149: Autos spread breakeven is 3x that of Pharma

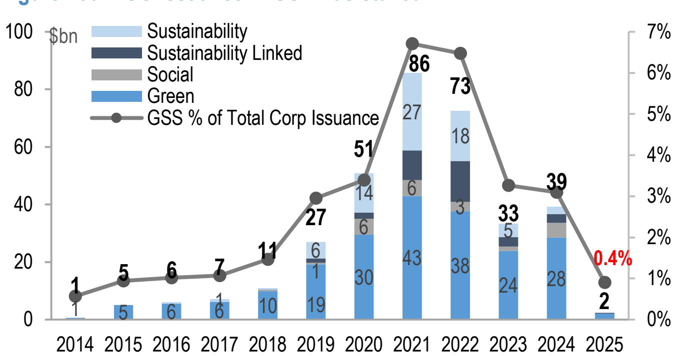


Spread Breakeven = JULI Portfolio Spread / Modified Duration
Source: J.P. Morgan.

RIP USD ESG Issuance

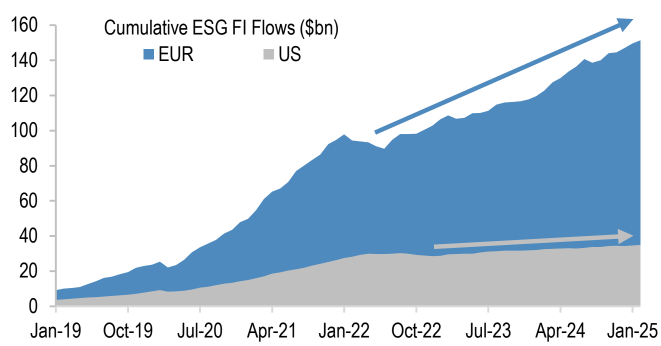
There has been just $2.1bn of ESG USD HG bond issuance YTD, 0.4% of total supply. This includes green bonds, sustainable-linked bonds and social bonds. GSS issuance peaked at $86bn in 2021 (6.2% of supply) and has been declining each year since then (i.e. well before the recent US election, Figure 19). Last year there was $39bn of ESG-related issuance so clearly the decline has meaningfully accelerated post the election. There are several reasons for the declining trend even before this year, including no meaningful cost savings for issuers recently (i.e. the spread for ESG bonds has been close to non-ESG bonds for the same issuer) and there has been little new money allocated to US-based FI ESG funds in recent years as well. Since 2022, ESG funds in EUR have grown 60% versus US funds have grown just 33%, from a much smaller base (Figure 20). This year, political dynamics which have turned decidedly negative towards ESG issues in the US at the federal level have likely played a part, broadening the pushback which since 2021 was mostly at the state level instead. Notably, this trend is not evident in Euro HG credit where ESG issuance has represented 12% of supply YTD and 20% last year. This is understandable as in Europe the regulatory dynamics are the opposite of those in the US with regard to ESG issues.

Figure 150: ESG issuance in USD has stalled



Source: J.P. Morgan, Dealogic.

Figure 151: ESG funds continue to grow in EUR but not in USD

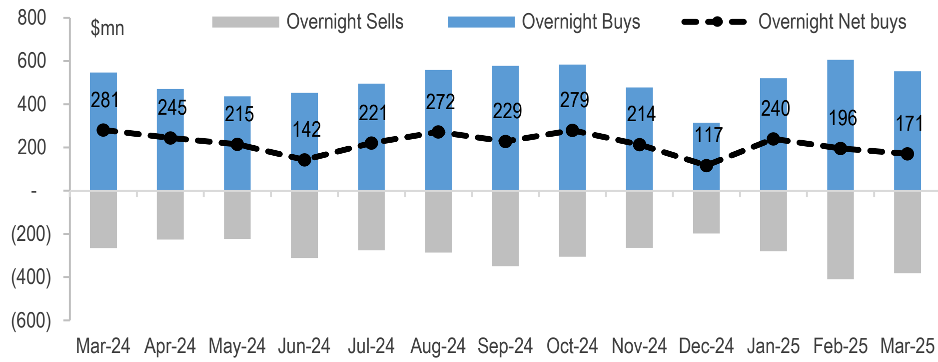


Source: J.P. Morgan, EPFR.

April showers bring Japan buyers

Our FAB index for foreign demand is close to a 12m low, largely on account of large rates and FX moves in EMEA (see the shifting sands of Eurozone demand). One of the few relative bright spots though remains Japan and Taiwan, with the pickup at the 10yr point still at 57% of the 6m range for JPY and 65% for TWD. Yet overnight flows have been lackluster lately, with a downward trend in net buying over the past 2 months:

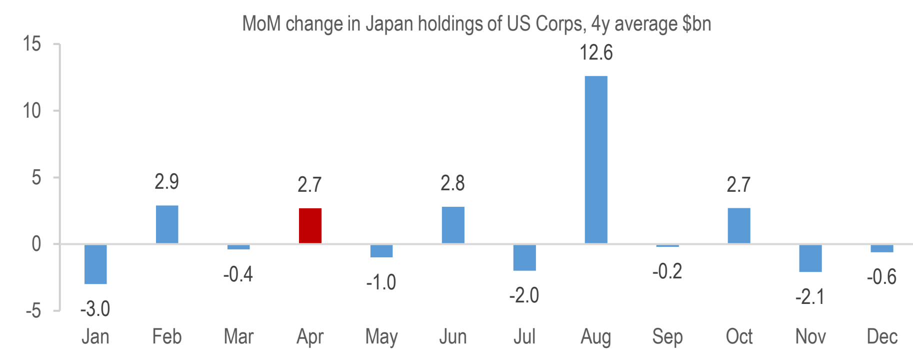
Figure 152: Monthly Overnight TRACE flows ($mn daily average)



Source: J.P. Morgan, TRACE.

We believe part of this is due to seasonality around the end of the fiscal year for most Japanese investors on March 31st. There is evidence for this in the TICS dataset of foreign holdings which shows some degree of positive seasonality around April in recent years, with Japan a net buyer 90% of the time in April versus just 40% of the time in March over the past 10 years. Below we show the monthly seasonality of these flows over the last 4 years where the Japan flows have been somewhat more two-way and which shows a similar stronger pattern for April:

Figure 153: Japan tends to flip back to a buyer of HG in April



Source: J.P. Morgan, TICS.

We believe the relative value setup is good enough this year to see Japan buying pickup once again this April, which should benefit the front-end in particular; over the last 4 years overnight buying of the 1-5yr part of the curve has increased by 42% on average from March to April.

FAB index slightly higher as overseas yields decline; Autos getting sold overnight on further tariffs

FAB: Our JPM Foreign Attractiveness of USD IG Bonds (FAB) index rose by 4bp WoW to 27bp, or 7% of its 12m range, as USD IG yields rose 3bp WoW and local govt yields declined 2bp, offset by a 1bp rise in hedging costs on average. The move higher was driven primarily by EUR and JPY. That said, the Forward FAB index fell by 3bp WoW and

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is now 43% above the FAB index.

EMEA: For EUR investors, the USD IG pickup rose 4bp WoW as EUR yields fell, despite hedging costs up another 3bp to 91% of its 6m range. ILS and NOK are the only two EMEA currencies where hedging costs are in the lower half of their respective 6m ranges, though the pickup is also for NOK, as local yields have risen whereas for ILS they haven't. USD IG remains less attractive than EUR IG across all tenors and currencies but CNY.

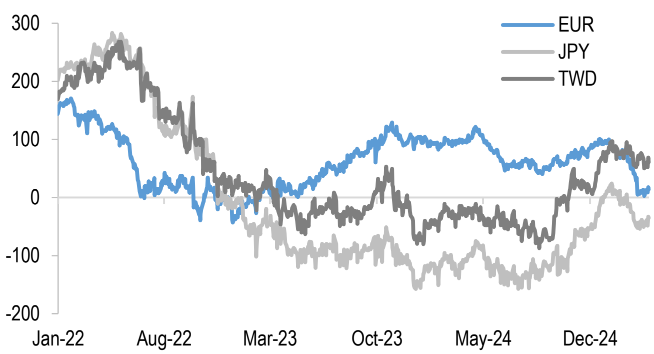
APAC: For JPY, the yield give improved by 9bp WoW to -35bp driven by an 8bp improvement in hedging costs. **Hedging costs for JPY are now the lowest since September 2022 at 4.19% yet the forward markets suggest a further 32bp decline over the next 6m.** The same was true to a lesser extent for TWD investors where the pickup rose by 5bp WoW to +61bp, partially driven by a 2bp decline in hedging costs.

Americas: For MXN investors, **the hedge pickup moved 20bp lower to the least since July 2021** as President Trump announced further tariffs on Autos, which are Mexico's biggest exports (see here), making MXN rate cuts more likely on balance. With MXN govt yields down though, the hedged yield pickup declined just 5bp. Markets expect the hedge pickup to decline another 30bp over the coming 6 months.

Overnight Flows: Overnight flows declined WoW to +$195mn/night last week despite an increase in TWD ETF inflows to $70mn/night as single-name net buying as per TRACE declined. Notably, **we saw selling of Autos** (HYNMTR floaters) versus net buying of Banks and Healthcare.

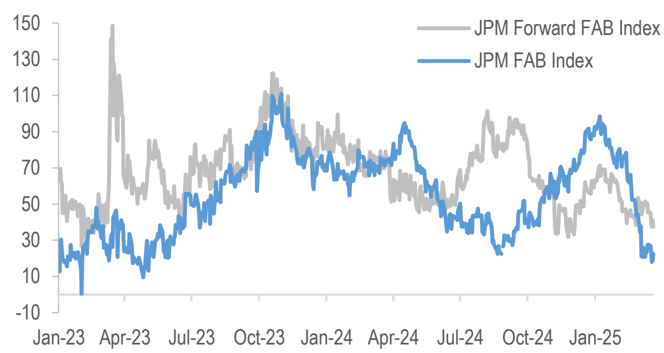
Please see our HG Foreign Demand Monitor for more details.

Figure 154: 10y USD IG Corps FX Hedged Yield Pickup



Source: J.P. Morgan, Bloomberg Finance L.P.

Figure 155: JPM Foreign Attractiveness of USD IG Bonds



Source: J.P. Morgan, Bloomberg Finance L.P.

HG spread curves steepen as growth risks push down yields

Treasury yields fell 9-15bp last week as markets brace for the next round of tariff announcements this week. JULI spreads widened by 5-8bp on the week with the short end outperforming. The 5s10s curve steepened by 2.9bp to 28bp, its steepest level since mid-September 2024. The 3s5s curve steepened by 0.7bp to 17bp, now at 74% of its 6m range and the 10s30s curve steepened by 0.5bp to 22bp, the mid point of its 6m range.

The **3s5s curve** steepened by 0.7bp WoW and by 1.1bp MoM to 16.9bp. The 3s5s issuer curves for RSG (13bp WoW) and PARA (13bp WoW) steepened the most while BMW (-15bp WoW) and DTRGR (-11bp WoW) flattened the most WoW. Currently, F (37bp,

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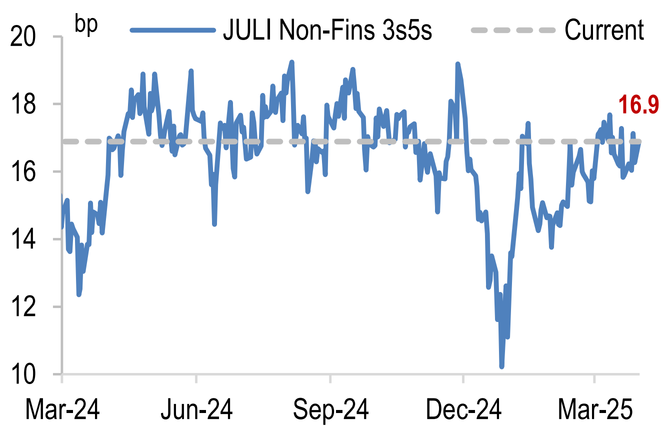
100%) and D (33bp, 100%) are at the steepest level while BMW (9bp, 0%) and HON (14bp, 3%) are at the flattest level in their 6m range.

The **5s10s curve** steepened by 2.9bp WoW and by 2.1bp MoM to 28.4bp. The 5s10s issuer curves for VW (18bp WoW) and BPLN (17bp WoW) steepened the most while AMT (-11bp WoW) and CDW (-8bp WoW) flattened the most WoW. Currently, APTV (65bp, 100%) and ENBCN (45bp, 100%) are at the steepest level while RSG (11bp, 0%) and HCA (29bp, 0%) are at the flattest level in their 6m range.

The **10s30s curve** steepened by 0.5bp WoW while it flattened by 1.0bp MoM to 22.1bp. The 10s30s issuer curves for UPS (11bp WoW) and STLD (11bp WoW) steepened the most, while FLO (-11bp WoW) and BMY (-9bp WoW) flattened the most WoW. Currently, DOW (41bp, 100%) and SNPS (37bp, 100%) are at the steepest level while APH (8bp, 0%) and NGGLN (9bp, 0%) are at the flattest level in their 6m range.

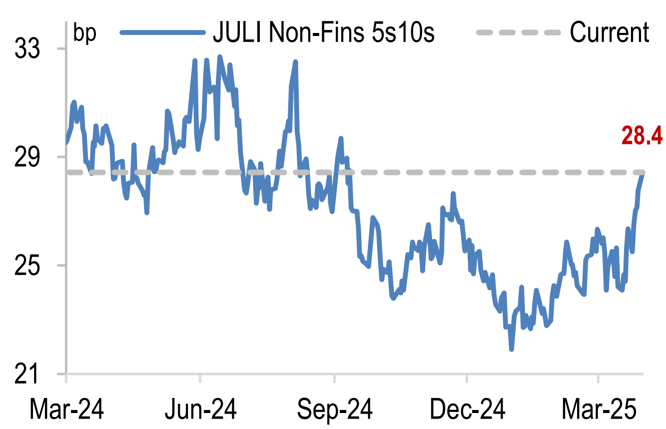
Please see Curveball: HG Credit Curve Opportunities for more details.

Figure 156: JULI Non-Fins 3s5s curve



Source: J.P. Morgan.

Figure 157: JULI Non-Fins 5s10s curve



Source: J.P. Morgan.

This report was excerpted from *Credit Market Outlook & Strategy: Everything is on the table now, including a recession - shifting JULI target 35bp wider to 125bp*, Eric Beinstein, April 04, 2025

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High Yield

- High-yield bond spreads widened by the most since March 2023's regional banking crisis as Trump's Liberation Day announcement unveiled a remarkably large and broad-based hike in US tariffs that, if sustained, would likely push the US and global economy into recession this year. **High-yield bond yields and spreads increased 30bp and 62bp over the past week to 7.98% and 422bp, respectively.** And BB spreads are now 282bp (+49bp w/w), B spreads are 430bp (+70bp w/w), and CCC spreads are 859bp (+114bp w/w). Our global economists raised their risk of recession in the global economy this year to 60%, up from 40% (There will be blood). While tariff rates could be negotiated down over the coming months, we believe tensions could escalate near-term via the introduction of sectoral tariffs and some form of retaliation by trading partners. **Regardless, the lingering uncertainty surrounding tariffs is likely to negatively impact business and consumer sentiment and lead to a weaker labor market and an active debate on recession probabilities. We believe these conditions will be accompanied by higher yields and spreads for leveraged credit. Thus, we introduce a 2Q25 target for HY yields and spreads of 9.0% and 550bp.** To be clear, we believe the HY product is uniquely positioned to "weather the storm" due to low defaults (1Q HY default rate 0.5% annualized), ample liquidity ($610bn refi in 2024), solid balance sheets (see 4Q24 High-Yield Credit Fundamentals), historically strong credit quality (51% BBs), attractive yields, and supportive technical (light net issuance, elevated cash balances). That said spread premiums should rise alongside the escalation in macro uncertainty.
- Leveraged loan prices declined $1.10 w/w and are down $2.08 year-to-date to a low since November 2023. As well, only 16% of loans now trade $99.5+ versus 76% at YE24. **And leveraged loan yields and spreads (3yr) increased 6bp and 41bp over the past week to 8.38% and 503bp, respectively. We also introduce a 2Q target for leveraged loan spreads of 650bp as a slowing economy will weigh on technicals and redirect attention to the asset classes' weaker balance sheets.** That said, the tail risk surrounding loan default rates has been diminished by the past 5 quarters' surge in refinancing by lower-rated credits. Leveraged loans are providing a -0.2% loss in 2025 with BB, B1, B2, B3, and CCC-rated loans returning +0.3%, -0.4%, -0.3%, -0.8%, and -1.9%, respectively.
- We published our Default Monitor. Default/LME activity rose in March ($4.6bn) following February's lightest activity ($1.6bn) since December 2022. And the combined total of 15 defaults/LMEs totaling $10.9bn in 1Q25 compares with 24 defaults/LMEs totaling $21.9bn in 1Q24 and 19 actions and $21.2bn in 1Q23. **Notably, 1Q was the lightest quarterly default/LME volume since 4Q22**. **Including distressed exchanges, the par-weighted US high-yield bond and loan default rates decreased 5bp and 7bp m/m to 1.20% and 3.86%, respectively,** versus our 2025 forecasts of 1.25% (HY) and 2.75% (LL). Excluding distressed exchanges, the par-weighted HY bond and LL default rates are only 0.27% and 1.24%, respectively.

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High-yield bond spreads widened by the most since the regional banking crisis (March 2023) this week as Trump's Liberation Day announcement unveiled a remarkably large and broad-based hike in US tariffs that, if sustained, would likely push the US and global economy into recession this year. The large 20% tariff imposed on the EU represents the most significant incremental shock to the global outlook. If implemented, the effective US tariff rate will likely approach 23%. Levied on a base of $3.3 trillion US goods imports, this year's cumulative tariff hike should be viewed as a US tax increase of roughly $400bn or 1.3% of GDP, which would be the largest tax increase since the Revenue Act of 1968 and could take the US economy perilously close to a recession. Meanwhile, the impact on inflation will be substantial adding close to 1.5% to PCE this year (assuming only limited business margin compression). Representing a substantial macro-economic shock not currently incorporated in forecasts, this shock will likely be magnified by its impact on sentiment and through the retaliation of countries. Notably, our global economists raised their risk of recession in the global economy this year to 60%, up from 40% (There will be blood). The The S&P 500 declined 5% this week, the VIX is approaching 40, Brent Oil slid $10, and 2yr Treasury yields are 40bp lower wow with markets now pricing in more than four quarter-point rate cuts (115bp) by YE25 (i.e. shock to growth outweighing shock to inflation). **High-yield bond yields and spreads increased 30bp and 62bp over the past week to 7.98% and 422bp, respectively**, which are 40bp and 97bp higher year-to-date. For context, Thursday's 41bp of HY spread widening closely resembled the largest post-pandemic daily widening of 46bp occurring on 3/13/23 during the regional banking crisis. Notably, yields and spreads are now at their high since August 2024. **While tariff rates could be negotiated down over the coming months, we believe tensions could escalate near-term via the introduction of sectoral tariffs and some form of retaliation by trading partners. Regardless, the lingering uncertainty surrounding tariffs is likely to negatively impact business and consumer sentiment and lead to a weaker labor market and an active debate on recession probabilities.We believe these conditions will be accompanied by higher yields and spreads for leveraged credit. Thus, we introduce a 2Q25 target for HY yields and spreads of 9.0% and 550bp. We also introduce a 2Q target for leveraged loan spreads of 650bp as a slowing economy will weigh on technicals and redirect attention to the asset classes' weaker balance sheets.**To be clear, we believe the high-yield product is uniquely positioned to "weather the storm" due to low defaults (1Q HY default rate 0.5% annualized), ample liquidity post a record refi wave ($610bn in 2024), solid balance sheets (see 4Q24 High-Yield Credit Fundamentals), historically strong credit quality (51% BBs), attractive yields, and supportive technical (light net issuance, elevated cash balances). And the tail risk surrounding loan default rates, too, has been diminished by the past five quarters' surge in refinancing by B3 or lower rated credits. That said spread premiums should rise alongside the escalation in macro uncertainty.

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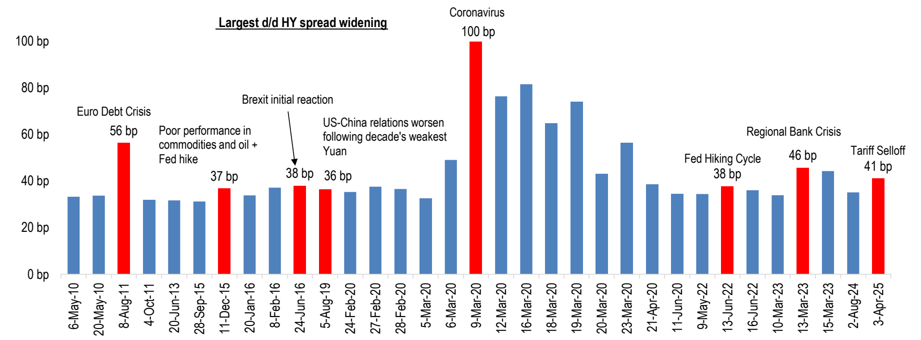
Thursday's 41bp of HY spread widening was the largest since March 2023's regional banking crisis



Source: J.P. Morgan.

Despite widening 62bp over the past week, high-yield bond spreads remain 59bp inside the 15-year average

Historical Credit Spreads

	HY	IG	BBB	BB	B	CCC	HY/IG	BB/BBB	B/BB	CCC/B
Current	**422bp**	**105bp**	**127bp**	**282bp**	**430bp**	**859bp**	**317bp**	**155bp**	**148bp**	**429bp**
12M High	424bp	112bp	134bp	282bp	430bp	972bp	317bp	155bp	148bp	577bp
12M Low	296bp	77bp	96bp	185bp	292bp	632bp	214bp	86bp	104bp	338bp
1 Yr Average	340bp	90bp	111bp	214bp	331bp	781bp	249bp	102bp	117bp	450bp
5 Yr Average	435bp	121bp	149bp	296bp	452bp	882bp	314bp	146bp	157bp	429bp
10 Yr Average	452bp	125bp	157bp	298bp	455bp	898bp	328bp	141bp	157bp	443bp
15 Yr Avg. (Post-GFC)	**481bp**	**134bp**	**167bp**	**320bp**	**479bp**	**884bp**	**347bp**	**153bp**	**159bp**	**406bp**
US Recession Avg.	971bp	252bp	355bp	568bp	901bp	1977bp	716bp	245bp	333bp	1076bp
US Non Recession Avg.	496bp	116bp	168bp	318bp	493bp	959bp	396bp	170bp	175bp	466bp
Post GFC Low	296bp	77bp	96bp	185bp	292bp	557bp	214bp	81bp	93bp	198bp
All Time Low	251bp	75bp	96bp	159bp	228bp	398bp	163bp	22bp	18bp	166bp
% Below Post-GFC Avg.	**-12%**	**-22%**	**-24%**	**-12%**	**-10%**	**-3%**	**-9%**	**1%**	**-7%**	**6%**
% Above Post-GFC Low	**42%**	**36%**	**33%**	**53%**	**47%**	**54%**	**48%**	**91%**	**59%**	**117%**

Source: J.P. Morgan.

By rating, BB bond yields are now 6.58% (+17bp w/w), B yields are 8.05% (+318bp w/w) and CCC yields are 12.29% (+81bp w/w). And BB spreads are now 282bp (+49bp d/d, +71bp YTD), B spreads are 430bp (+70bp w/w, +106bp YTD), and CCC spreads are 859bp (+114bp w/w, +177bp YTD). HY/IG spreads of 317bp (+51bp w/w, +75bp YTD) are 67bp above their 12M average, while BBB/BB spreads of 155bp (+37bp w/w, +45bp YTD) are 53bp above their 12M average. Notably, both HY/IG and BB/BBB spreads are at their widest levels since November 2023. **High-yield bonds are down -0.52% in the first few days of April with CCCs (-1.44%) underperforming Bs (-0.57%) and BBs (-0.24%).** Note spreads widened 58bp in March with BBs 40bp wider versus 66bp and 85bp of widening by Bs and CCCs. And the 1.1% loss in the HY index for March was the weakest performance since October 2023.**The HY index is providing a +0.47% gain year-to-date with BBs (+1.31%) outperforming Single Bs (+0.23%) and CCCs (-1.99%).** Meanwhile, capital market activity was negligible with 2 deals for $2.1bn pricing. And April issuance totals $1.0bn (or $1.0bn ex-refi) following a 5-month high $26.6bn ($6.2bn ex-refi) in March. Despite market volatility, capital markets produced the heaviest refinancing activity ($20.4bn) in March since September. Gross HY new-issue volume totaling $69.3bn trails the $91.3bn of volume priced over the same period last year (-24%), while net volume of $18.1bn (ex-refi) YTD compares with $15.0bn YTD24 (+20%).

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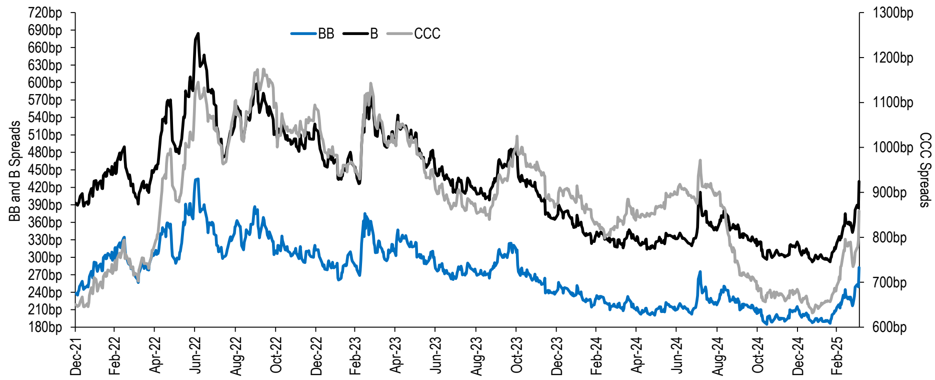
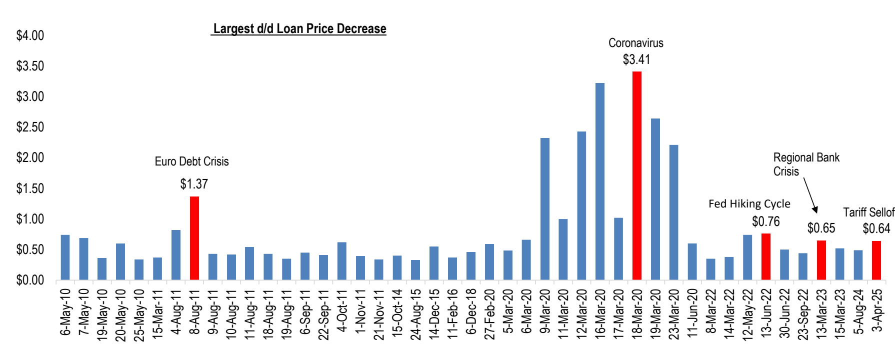
HY spreads are 97bp wider year-to-date with BBs 71bp wider, Bs 106bp wider, and CCCs 177bp wider amid decompression



Source: J.P. Morgan.

Leveraged loan prices endured their largest setback since March 2023 as investors reassess recession risks amid heightened tariff uncertainty. **Leveraged loan prices declined $1.10 over the past week to $95.54** with Ba1/Ba2/Ba3 prices decreasing $0.75 to $98.52, B1 prices decreasing $1.15 to $97.29, B2 prices decreasing $1.01 to $97.21, B3 prices decreasing $1.34 to $94.15, and Caa1/Caa2/Caa3 prices falling $1.69 to $76.65. **Down $2.08 year-to-date, leveraged loan prices ($95.54) are at a low since November 2023 with only 16% of loans now trading $99.5 or above versus 76% at YE24.** Leveraged loans are down -0.69% in the first few days of April with BB, B1, B2, B3, and CCC-rated loans returning -0.47%, -0.77%, -0.66%, -0.88%, and -1.40%, respectively. For reference, March's decline (-0.38%) was the first monthly loss for the index since October 2023. **And leveraged loan yields and spreads (3yr) increased 6bp and 41bp over the past week to 8.38% and 503bp, respectively,** which are up 5bp and 68bp year-to-date. At a 13M high, leveraged loan spreads reached a post pandemic peak of 681bp in July 2022. And the yield for the leveraged loan index of 8.38% is 40bp above the HY bond index (7.98%), which is comparable to an average 92bp above over the past year. **Notably, this is the tightest gap between HY/LL yields since May-22.** And the % of leveraged loans trading above Par is at its 22-month low 2.1%; other price bucket percentages are as follows: sub-$80, $80-$89.99, $90-$94.99, $95-$97.99, $98-$98.99, and $99-$99.99 are now at 3.00%, 5.23%, 8.76%, 17.87%, 26.84%, and 36.20%.

Thursday's $0.65 decline in leveraged loan prices was the largest setback since the regional banking crisis



Source: J.P. Morgan.

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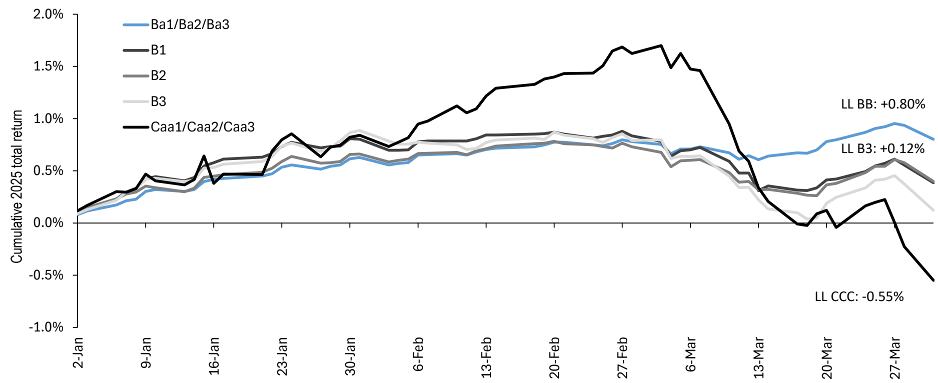
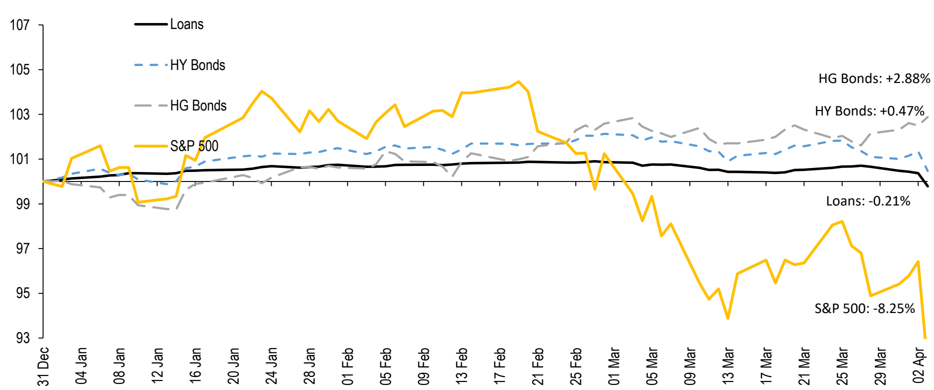
Lower-quality loans are underperforming higher quality over the past month



Source: J.P. Morgan.

Leveraged loans are providing a -0.21% loss in 2025 with BB, B1, B2, B3, and CCC-rated loans returning +0.33%, -0.39%, -0.26%, -0.76%, and -1.93%, respectively. The top performing industries YTD are Telecom (+1.76%), Metals/Mining (+0.67%), and Energy (+0.57%) with the laggards Chemicals (-2.93%) and Housing (-2.64%). By comparison, HY, IG, and the S&P 500 are returning +0.47%, +2.88%, and -7.94% YTD, respectively. Meanwhile, CLO volume totals $4.0bn in April ($1.8bn ex-refi/resets) compared with $47.9bn in March ($16.8bn ex-refi/resets); 2025 CLO volume totals $146.6bn gross and $46.7bn net which compares to $87.6bn gross and $49.1bn net over the same period a year ago. And 5 deals for $5.8bn priced this week. April's institutional loan issuance totals $2.0bn ($0.4bn net) following March issuance totaling $56.7bn ($18.8bn ex-refi/reprice).Note 1Q gross issuance totaling $337bn was the third most active quarter on record, whereas net issuance totaling $60bn was the highest since 1Q22. **YTD institutional loan issuance totals $338.9bn, which includes $182bn of repricing (54%), $96bn of refinancing (28%), and $61bn of non-refi/repricing (18%) and compares to $324bn gross (+5% y/y) and $38bn net (+58% y/y) over the same period a year ago.**

High-yield bonds and leveraged loans are providing year-to-date gains and losses of +0.5% and -0.2%, respectively



Source: J.P. Morgan.

This report was excerpted from, *Credit Strategy Weekly Update*, Nelson Jantzen, April 4th, 2025

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CLO

Bad Moon Rising - Revising the Forecast

- We'd appreciate a moment of your time in our regular short CLO market view survey, which expires on Tuesday April 9th. Please click here: https://jpmc.surveymonkey.com/r/D6HS9DT
- **We believe rising risks will deter investors more than rising spreads will attract them** and revise our CLO spread, return, and new issue supply expectations. These changes are not drastic given the exceptional uncertainty as we write this, the starting point of a mixed '25 Outlook (lower expected supply and flat(tish) spreads, here), and, the possibility of shallower Fed easing given inflation risks (potentially more elevated floating-rate yields than in prior cycles). The huge increase in the US effective tariff rate from 10% to just over 23% puts it back to where it was over 100 years ago. In addition to raising the US inflation forecast, our economists flag a 60% probability of a global recession (see here, here). Our Credit Research team highlights the impact of tariffs on sectors including Automotive, Retail, Consumer, TMT, etc, here.
- We widen our YE25 base case T1 AAA spread forecast to 150bp (from the prior 120bp), but are cognisant of the risks in a recession scenario (e.g., prior wides of 220bp in 2022). On March 7th, we became concerned with then-current cycle tights of 110bp not pricing in policy uncertainty, and set a downside risk target of 140-150bp (link), now replaced with this base case. Our 150bp target for T1 implies a tail to ~170-175bp for lower tier on worsening liquidity (depends on tiering). We also cut the CLOIE return forecast to +4.0% (from +6.5%), lower the US new issue forecast to $150bn (from $180bn, or a greater -25% y/y slowdown vs. our original outlook), and lower the Euro forecast to €40bn (from €45bn).
- Should the Fed deliver shallower cuts than in prior downturns due to inflation, CLO floating-rate returns may not underperform duration as much which could partly brake CLO spread underperformance, but this is highly uncertain, noting in the last three non-COVID recessions over the past 30 years the Fed eased on average by over 500bp (link). As we think the credit curve further steepens, our top trades are T1 US CLO AAA in primary (the highest liquidity and quality) and US CLO AA Secondary (spread pick-up and low credit risk, albeit less liquidity: ~170bp or +40bp above Secondary AAA).
- We discuss some of the mechanics around CLO ETF creation/redemption mechanisms. CLO ETFs have garnered attention; earlier focus has been on growth prospects, more recently replaced with outflows and longevity concerns (see here for related Loan ETF commentary during market corrections). US CLO ETFs have had an aggregate -$590mm outflow in the last four weeks, which compares to a weekly average $434mm inflow over the last year.
- On March 31st, the European Banking Authority (EBA) published recommendations on the Securitisation Regulation (link). It is still early days, and issuance may slow of European CLOs, and possibly also of EU-risk retention compliant US CLOs, while the market gains a better understanding.

CLO

Bad Moon Rising - Revising the Forecast

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We believe rising risks will deter investors more than rising spreads will attract them and revise our CLO spread, return, and new issue supply expectations. These changes are not drastic given the exceptional uncertainty as we write this, the starting point of a mixed '25 Outlook (lower expected supply and flat(tish) spreads, here), and, the possibility of shallower Fed easing given inflation risks (potentially more elevated floating-rate yields than in prior cycles). The huge increase in the US effective tariff rate from 10% to just over 23% puts it back to where it was over 100 years ago. In addition to raising the US inflation forecast, our economists flag a 60% probability of a global recession (see here, here). Our Credit Research team highlights the impact of tariffs on sectors including Automotive, Retail, Consumer, TMT, etc here.

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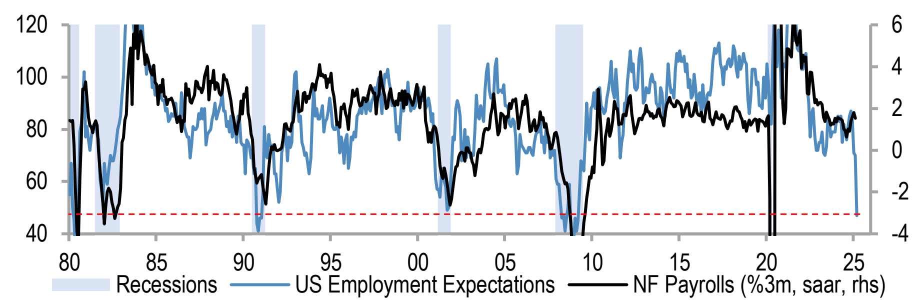
Should the Fed deliver shallower cuts than in prior downturns due to inflation, CLO floating-rate returns may not underperform duration as much, which could partly brake CLO spread underperformance, but this is highly uncertain, noting that in the last three non-COVID recessions over the past 30 years the Fed eased on average by over 500bp (link). As we think the credit curve further steepens, our top trades are T1 US CLO AAA in primary (the highest liquidity and quality) and US CLO AA Secondary (spread pick-up and low credit risk, albeit less liquidity: ~170bp or +40bp above Secondary AAA). Spread tiering could rise even further: US CLO AAAs currently have a tiering basis of 25bp (125-150bp), but this has been higher during risk aversion (Figure 160). The volatility of CLO BB spread tiering has also risen to levels not seen since the pandemic (Figure 162).

Figure 158: UMich survey (expected chg in unemployment over next year) relative to Non-Farm Payrolls (% chg at annual rate over 3m), 1980 to present, vs. US Business Cycles



Source: J.P. Morgan, Datastream, IBES, BLS, Bloomberg Finance L.P. Recession indicator provided by NBER dating.

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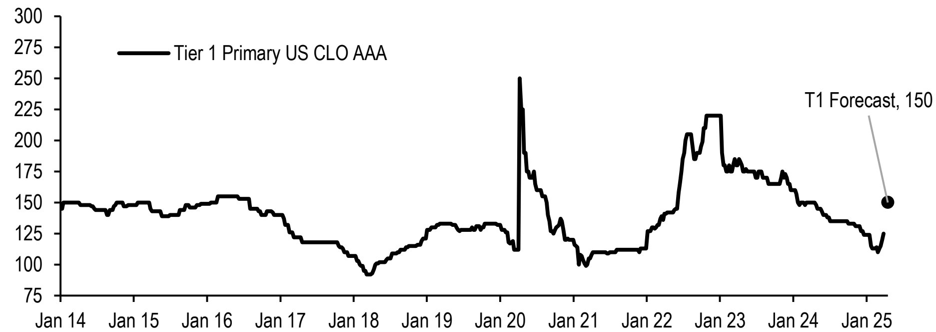
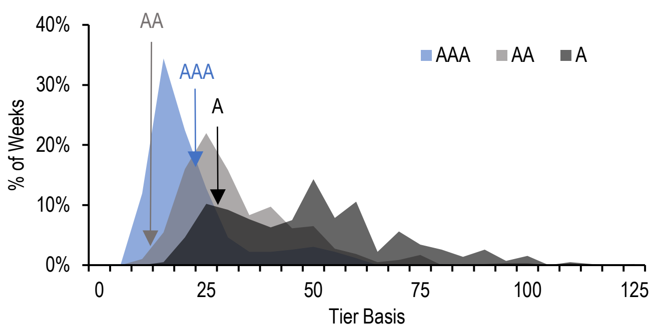
Figure 159: We widen our Tier 1 US CLO AAA Primary spread forecast to 150bp



Source: J.P. Morgan.

Figure 160: Distribution of US CLO Tier Basis by Tranche, 2014 to present



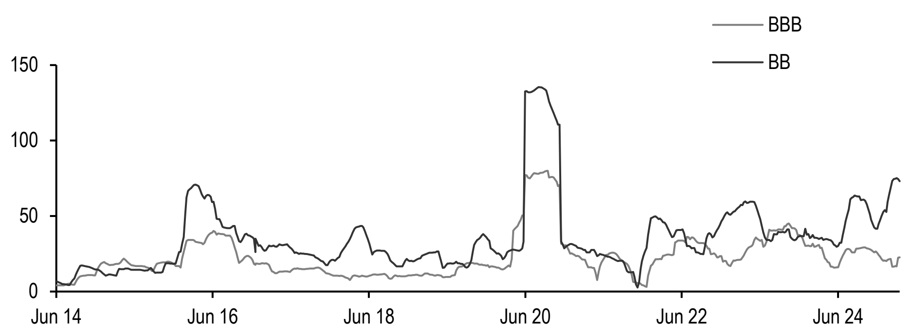
Source: J.P. Morgan. Arrows denote where current basis is.

Figure 161: US CLO new supply vs. spread tiering, 2014 to present

	Average Tier Basis (bps)				
Weekly US CLO New Issue	AAA	AA	A	BBB	BB
25th Percentile ($1.3bn)	23	37	55	79	113
50th Percentile ($2.3bn)	20	32	49	75	112
75th Percentile ($3.4bn)	21	34	50	73	113
100th Percentile ($11.3bn)	17	31	46	71	124

Source: J.P. Morgan.

Figure 162: Rolling 6M BBB and BB Spread Tier Basis Volatility is Starting to Creep Up



Source: J.P. Morgan

CLO ETFs

CLO ETFs have garnered attention; earlier focus has been on growth prospects, more recently replaced with outflows and longevity concerns (see here for related Loan ETF comment during market corrections). US CLO ETFs have had an aggregate -$590mm outflow in the last four weeks, which compares to a weekly average $434mm inflow over the last year. US CLO ETF AUM now totals $30.4bn (2.7% of US CLO market size) compared to $9.4bn at this time last year ($21.0bn YoY rise), although AUM has declined -2.8% from the recent peak. See CLO Weekly.

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It is worth highlighting that flows can often be driven by the premium/discount of the ETF price relative to the underlying and that buying (or selling) an ETF share doesn't necessarily result in an inflow (creation) or outflow (redemption). Like other corporate credit-related ETFs, CLO ETFs follow a similar creation/redemption mechanism. When demand rises for ETF shares and an investor buys a share in the market, a dealer will find a seller or create shares if they are an Authorised Participant (AP). This is typically through an "in-kind" mechanism, where an AP provides the ETF issuer with bonds and receives shares. Conversely, when an ETF investor sells their shares, market-makers can find a buyer, or if they're an AP, can deliver shares back to the ETF issuer to receive bonds in an "in-kind" redeem. The dealer can either sell or hold the bonds based on prevailing market conditions, etc, and there may be other nuances apart from the above simplified scenario (see Corporate Credit ETF Handbook).

EBA Risk Retention

On March 31st, the European Banking Authority (EBA) published recommended changes to the Securitisation Regulation (link). One change pertinent to European CLOs is clarification around the 'sole purpose test' within the risk retention rules, as an entity retaining the economic interest in a securitisation should "have the capacity to meet a payment obligation from resources other than the exposures being securitized". The guidance stipulates that the risk retainer's revenue should not 'predominantly' arise from the securitised loans, with more than 50% required from non-retention revenue. The report also recommends broadening the definition of 'sponsor' to facilitate retention from a wider variety of eligible managers, as the definition currently encompasses EU investment firms and EU/non-EU credit institutions. It is still early days and issuance may slow of European CLOs, and possibly also of EU-risk retention compliant US CLOs, while the market gains a better understanding.

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Credit Derivatives

- **Performance of Equity and Credit Indices in Market Corrections.** We dissect the return performance of the European equity and credit indices (SX5E and Main) around initial market corrections. Risk adjusted, credit shows similar if not better drawdown in the initial phases of sell-offs, but underperforms equities in bear markets. On the flip side, credit tends to recover from losses faster than equities.
- **Owning tail protection funded by IG default risk.** CDX.IG equity tranches offer similar time value to CDX.IG Senior Mezz tranches post the recent underperformance of the former. The CDX.IG equity tranche screens as an attractive funding leg to buy protection against a larger selloff via CDX.IG senior Mezz tranches. In a market recovery, the CDX.IG equity tranche stands to benefit from a retracement in recent weakness.

Market Trends and Outlook

Flavors of convexity

Credit spreads have weakened amidst a resurgence of tariff-related concerns with US CDS indices currently trading only a few bps shy of their 1 year wides on a roll-adjusted basis. Credit-equity beta has also started to normalize suggesting the convexity on the pair is starting to kick in. This is visible not only in the linear space but even in the options markets for the two asset classes, with the ratio of equity vs. credit implied volatility falling sharply over the past few weeks after trading at elevated levels in early March.

With the SP&500 now ~10% below its peak, we dissect the performance of credit versus equity markets during periods of corrections in the *Market Themes* section. Risk adjusted, credit shows similar if not better drawdown in the initial phases of sell-offs, but underperforms equities in bear markets. On the flip side, credit tends to recover from losses faster than equities. This is consistent with the notion of negative convexity in selloffs, offset by superior carry return of credit in strong markets.

In the *Trade Ideas* section, we look at ways to fund tail protection by selling default protection in US IG credits. CDX.IG equity tranches have underperformed while CDX.IG Senior mezz tranche has underperformed, a typical move in an initial selloff from tight spreads. The time value of the equity tranche has increased more than the Senior mezz with the two tranches now offering similar carry and rolldown, a rare occurrence. Continued widening from current levels has historically proven to be more punitive for the Senior Mezz tranche. We take advantage of the recent moves to position from a market recovery by selling protection in CDX.IG equity tranches and hedging against a tail using the CDX.IG Sen Mezz tranche.

Finally, we show our latest update on the *CD Player Total Return Portfolio.* Despite the recovery of the past couple of weeks, we end up with a down month, as double-digit spread widening in CDX HY over the past week impacted some of our trades. On the other hand, our recent 7-10y BBB US vs Europe trade continues to perform.

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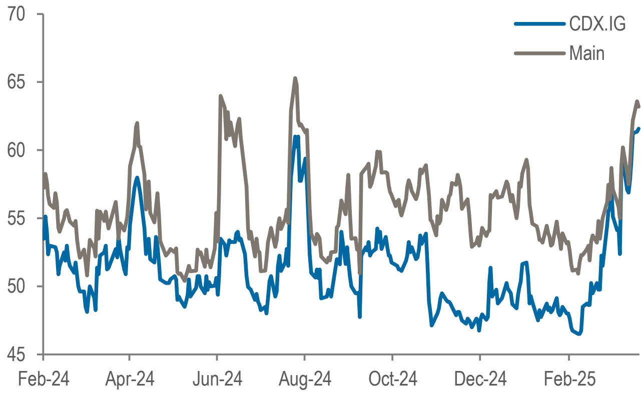
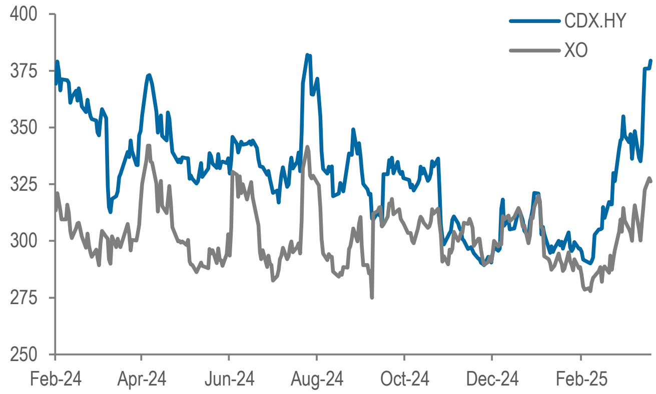
Figure 163: Investment Grade CDS Indices 5y Spread



Source: J.P. Morgan.

Figure 164: High Yield CDS Indices 5y Spread



Source: J.P. Morgan.

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Market Themes

No.1: Performance of Equity and Credit Indices in Corrections

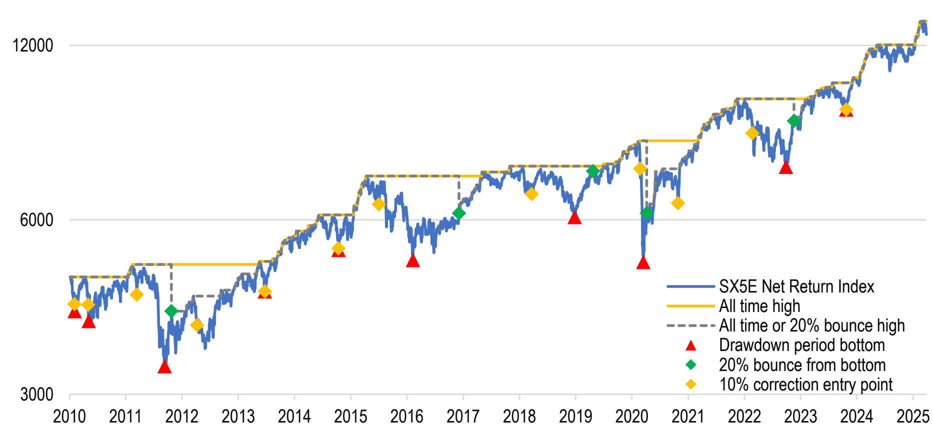
- We dissect the return performance of the European equity and credit indices (SX5E and Main) around initial market corrections.
- Risk adjusted, credit shows similar if not better drawdown in the initial phases of sell-offs, but underperforms equities in bear markets. On the flip side, credit tends to recover from losses faster than equities.
- This is consistent with the notion of negative convexity in selloffs, offset by superior carry return of credit in strong markets.

The trade war anxiety has been weighing on the markets this year, with SX5E down 5% from the recent peak, while SPX has been faring even worse, slumping 10% from the all-time high and entering the technical correction territory. Against this backdrop, much attention has been devoted to how quickly equity markets tend to recover the losses once indices cross the "correction" threshold, commonly defined as a 10% drawdown from a recent peak. With credit indices typically tracking the performance of their equity counterparts, it is also instructive to compare typical performance of equity and credit benchmarks into and out of corrections to see which one, if any, had historically recovered from previous losses faster.

We limit the scope of this exercise to the return performance of Euro Stoxx 50 (SX5E) and iTraxx Main indices from 1 Jan 2010 to 31 Mar 2025. We use net returns cum dividends for the equity index and unfunded return index for the CDS index. Next, we need to define what constitutes a correction (importantly, what exactly we mean by "a recent high"). We define it as a 10% decline in an index level from either a previously reached all-time high *or* a high reached following at least a 20% rebound from an earlier bottom that itself formed following at least a 10% drop. This is to capture systematically the periods when the market has stabilised but remained below the previous all-time highs, such as the periods in between the double dips of the Euro Sovereign Crisis or post-COVID recovery.

Figure 165: SX5E Performance and Correction and Drawdown Points

Log scale



Source: J.P. Morgan, Bloomberg Finance L.P.

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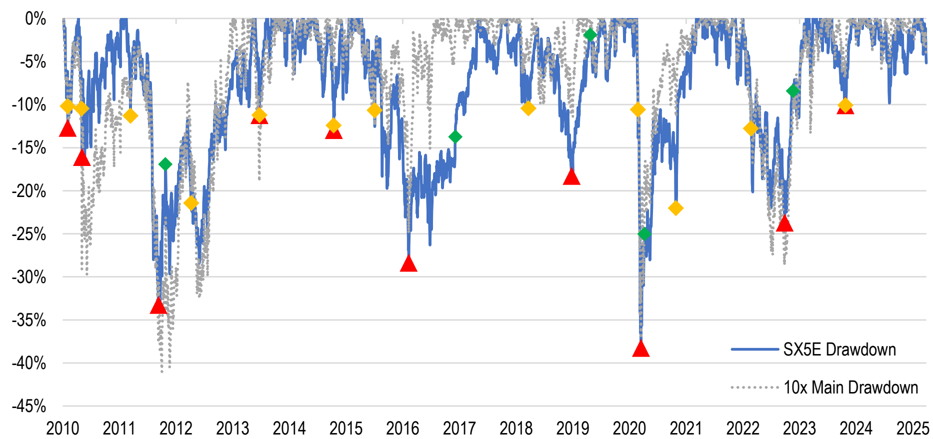
The next figure overlays these points against the SX5E drawdown time series (i.e. a % decline from a previously reached all time high). We also add the drawdown series for the Main return index (10x levered, reflecting typical beta or hedge ratio between equities and IG credit). We can immediately see the dispersion of outcomes between the two asset classes, whereby in severe sell-offs credit tends to have bigger drawdowns (albeit shorter lived) but also tends to retrace the capital losses faster in the subsequent recovery. This is consistent with the notion of negative convexity being traded off for the carry income nature of credit instruments (with the former magnifying the losses in crises and the latter accelerating the recovery).

Figure 166: SX5E Drawdown Time Series and Correction Points



Source: J.P. Morgan, Bloomberg Finance L.P.

To get a better sense of a typical trajectory of both asset classes once the market enters a correction, we calculate the cumulative return starting from a recent equity high, averaged across historical corrections (per the above definition; our sample contains 12 periods since 2010), which we show in the chart below. This suggests that on average credit had a smaller initial drawdown[1] (at least assuming 10x equity/credit beta). Subsequently, it took equities around 180 trading days (~8.5 calendar months) to recover the bulk of the losses, with credit slightly outstripping equities and Main and getting to the point of full recovery point around one month quicker compared to SX5E.

1. Note that because we average across periods and 10% correction points were reached at different time intervals, the average performance doesn't necessarily reach 10% drawdown.

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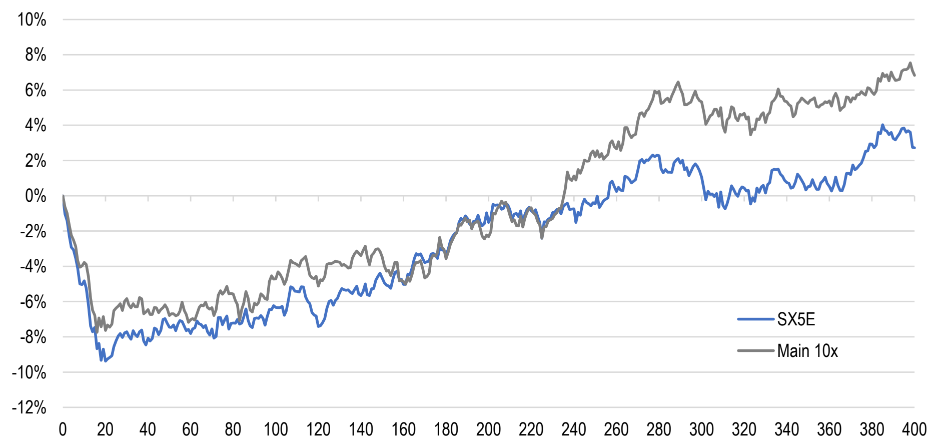
Figure 167: Performance of Equities and Credit around 10% equity corrections

X axis: trading days from recent high

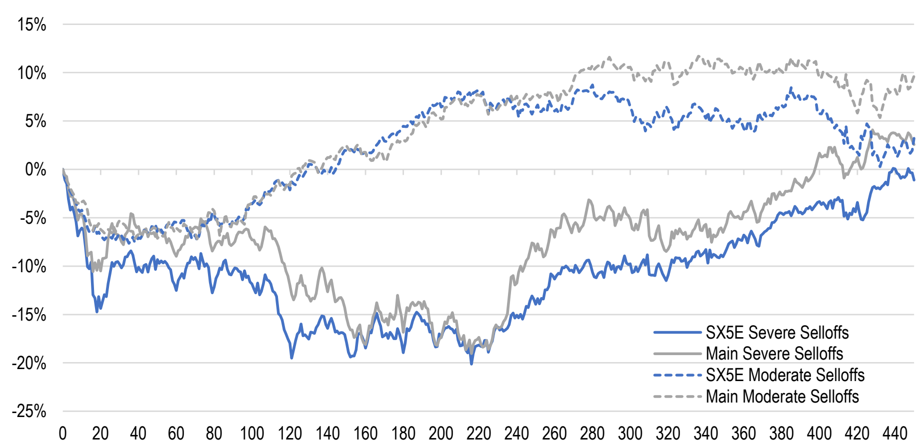


Source: J.P. Morgan.

Finally, it is instructive to see how equities and credit performed during sell-offs of different severity. To do so, we split our sample of 12 corrections into 8 moderate and 4 severe episodes, with the latter defined as where the worst equity drawdown was more than 20% (2012, 2016, 2020 and 2023). In moderate scenarios, it is notable how similar credit and equity performance was, both into and out of the initial correction, with comparable recovery periods of about 4 months. In severe bear markets, the initial credit performance was better vs equities, but subsequently credit underperformed and matched the equities drawdown as markets reached the trough. Following that, however, credit has on average outpaced equities on the recovery path, taking about two months less to recover from the point of initial correction compared to the stock index.

Figure 168: Performance of Equities and Credit around 10% equity corrections by severity of sell-offs

X axis: trading days from recent high



Source: J.P. Morgan.

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Trade Ideas

No.1: Owning tail protection funded by IG default risk

- The CDX.IG Equity tranche has been the worst performer since the selloff in credit intensified while the Senior Mezzanine tranche has performed the best. This has resulted in the equity tranche currently offering a similar time value to the Senior Mezz tranche, a rare occurrence.
- In the event that markets recover, we expect the equity tranche to retrace its recent underperformance. On the other hand, if tariff concerns continue to weigh on the market leading to recession fears, we would expect the IG Senior Mezzanine tranche to underperform.
- We recommend taking advantage of the underperformance of the equity tranche and the similar time value offered by the two tranches to buy protection on the Senior Mezzanine tranche funded by selling protection on the equity tranche.

Table 3: Trade Details

Leg	Instrument	Buy/Sell	Maturity	Notional	Delta	Upf	Spread	3m Theta
1	CDX.IG S43 equity tranche	Sell Prot	Dec-29	$20mn	8.8	29.62	933bp	440,080
2	CDX.IG S43 Sen Mezz tranche	Buy Prot	Dec-29	$98mn	1.8	-0.94	78bp	(462,854)
							Total	(22,774)

*3m theta doesn't account for funding which should benefit the trade
Source: J.P. Morgan.

Credit spreads have widened since late February as tariff-related concerns drove weakness across markets. The CDX.IG index has widened by 11bp since Feb 21st with index dispersion picking up. This has resulted in the CDX.IG equity tranche being the worst performing tranche in the IG complex in the recent selloff, underperforming the index by 1bp (index equivalent terms) (Table 4). On the other hand, senior tranches have outperformed so far in the selloff with the CDX.IG senior Mezzanine tranche outperforming by 0.6bp. The 3-month time value of the CDX.IG equity tranche post the underperformance is similar to that of the CDX.IG Senior Mezz tranche, a rare occurrence at current spread levels (Figure 170). We believe the recent underperformance of the equity tranche coupled with a similar time value of the equity tranche vs the Senior Mezz tranche offers an attractive entry point to position for a recovery in the market while owning tail protection to hedge against a continued correction. As a result, we recommend selling protection on the CDX.IG 5y equity tranche and hedging against further weakness by buying protection in the CDX.IG 5y Senior Mezz tranche.

Table 4: CDX.IG equity tranche has been the worst performing tranche in the recent widening

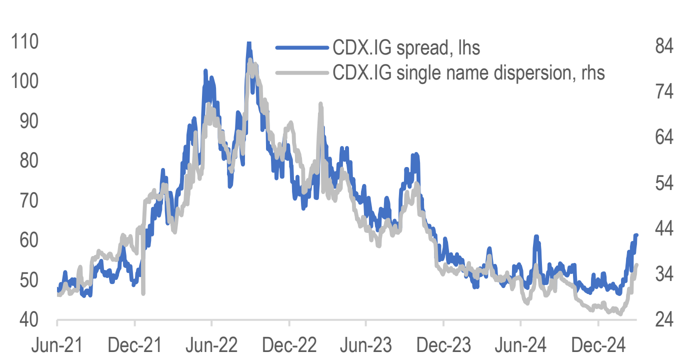
PnL since Feb 21st

	Index	Equity	Jun Mezz	Sen Mezz	SuperSen
Spread	58	953.9	237.7	78.6	22.5
Upfront	-1.8	30.2	5.7	-0.9	-3.4
Delta	-	8.7	4.3	1.8	0.5
PnL in recent widening (index equiv)*	-39.9	-4.72	-2.75	2.55	2.31
equiv)	11	1.0	0.6	-0.6	-0.5

*Delta hedged perofrmance for tranches

Source: J.P. Morgan.

Figure 169: Dispersion in CDX.IG index has picked up but the pick up is inline with the 5y index spread widening

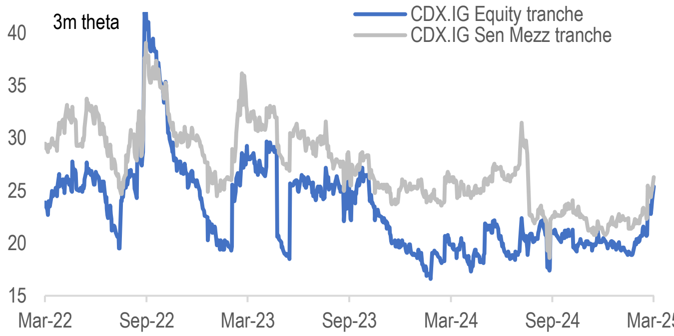


Source: J.P. Morgan.

In the event concerns regarding the macro environment fade and markets recover, we expect the equity tranche to outperform with the tranche more than retracing its recent underperformance as the bid for risk in a tight spread environment with increased political uncertainty is likely to result in compression across the capital structure. On the other hand, if concerns regarding the macro environment continue to grow leading to concerns regarding growing recession risks, we believe the equity tranche stands to outperform relative to the Senior Mezzanine tranche as the latter is expected to bear the brunt of the tail hedging demand. This is in line with the trend seen in large selloffs over the past few years where the equity tranche initially underperforms relative to the Senior Mezz tranche on the back of increased dispersion as higher beta names reprice faster (Figure 171). Post the initial selloff, the convexity of the Sen Mezz tranche tends to pick up if spreads continue to widen resulting in outperformance of the equity tranche. Note that the pair performed worse in 2020 in the selloff initially as dispersion increased significantly due to significant pick-up in dispersion driven by default concerns regarding some of the COVID-impacted names (for instance, cruise lines).

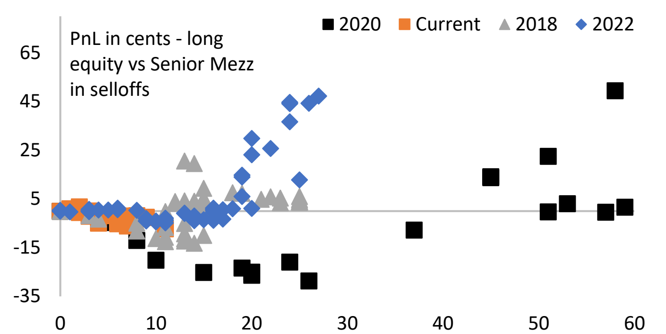
Figure 170: CDX.IG equity tranche offers similar time value to the Senior Mezz tranche, a rare occurrence at tight spread levels

3m time value of tranches (delta adjusted)



Source: J.P. Morgan.

Figure 171: CDX.IG equity tranche has tended to underperform in the selloff initially relative to Sen Mezz but outperform as the selloff deepens



Source: J.P. Morgan.

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Municipal Markets Weekly

Munis Rebound, Muni Mkt Performance in Recessions, K-12 to See Little Impact from EO to Dismantle Dept of Ed

- Our economists see the new tariff regime taking the average US tariff from 10% to just over 23%. This would be the largest tax hike since 1968, raising our forecast for the risk of **US/global recession this year from 40% to 60%.**
- Our economists now anticipate **full-year (4Q/4Q) real GDP growth of -0.3%,** down from 1.3% previously, and the downturn in economic activity is expected to drive the **unemployment rate up to 5.3%.** We still foresee the **first Fed cut in June,** but now project **cuts at every meeting through January,** reducing the top of the funds rate target range to 3.0%.
- To reflect this environment, our rates team lower their YE 10-year forecast from 4.15% to 3.65% and the 2-year forecast from 3.65% to 2.70%. There are downside risks to the forecasts if a deeper recession ensues. In turn, they recommended adding longs in 2-year Treasuries this week, and recommend maintaining 2s/5s steepeners to hedge against the risks of a deeper easing cycle.
- HG municipal yields closed the week **lower by 30-34-33-29bps** in 2-5-10-30yrs, respectively, **outperforming Treasuries** by 5-8bps across the curve. This follows lackluster municipal market performance in March (*Muni Monthly Index and Data Chartbook*, 4/1/25).
- Looking ahead to **next week, we anticipate +$10 billion in tax-exempt supply** amid a persistently volatile rates environment, influenced by tariff announcements, **potential House consideration of a unified budget resolution**, and the upcoming CPI report. Despite these dynamics, **if UST rates stabilize or rally further, we expect municipal fund inflows driven by improved asset class returns,** with additional demand likely from relative value focused investors.
- Both IG and HY municipals demonstrated **mixed yet resilient performance over the last three recessions.**
- The 2000 recession was largely driven by the burst of the dot-com bubble, and as such, there were no significant municipal bond outflows during this period. In contrast, both the 2008 and 2020 recessions saw some outflows, amidst inflows over the broader period.
- The Senate is expected to vote on the budget resolution on Saturday, with House Republican poised to take up the **unified resolution next week.** However, even if the resolution is adopted, we anticipate the timeline to finalize a reconciliation bill could **stretch into late 4Q,** owing to intra-party debate over the scale of potential Medicaid cuts, overall spending reductions, and the use of the untested “current policy” scoring method. Prolonged uncertainty regarding the bill's provisions is a **headwind for municipal market liquidity** to some degree.
- Dismantling the Dept of Ed and/or its major programs would require congressional action, which is unlikely given voter support across both parties. Further, **public education is largely funded by state and local governments,** with the federal government accounting for just ~9% of annual revenue nationwide, mitigating the risk of any cuts.
- However, mass layoffs (50% of the workforce) could diminish the ED’s capacity to fulfill its core functions, and threatens research utilized by muni market participants.

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Next week's heavy calendar will likely be met by continued rate volatility, headline risk around tariffs and legislation, as well as the release of tier 1 data. Despite these dynamics, if UST rates stabilize or rally further, we expect municipal fund inflows driven by improved asset class returns, with additional demand likely from relative value focused investors

Our economists now anticipate real GDP to contract under the pressure of tariffs, revising our **full-year (4Q/4Q) real GDP growth forecast to -0.3%, down from the previous 1.3%.** The downturn in economic activity is expected to drive the **unemployment rate up to 5.3%.** Despite raising our full-year core PCE inflation forecast by 1.4 percentage points to 4.4%, we still foresee the **first Fed easing in June.** However, we now project the Committee will **implement rate cuts at every meeting through January, reducing the top of the funds rate target range to 3.0%.** We maintain the view that the risk is skewed towards a later start to resumed easing rather than an earlier one (*An update on our economic outlook*, Michael Feroli, 4/4/2025).

To reflect this environment, our rates team lower their YE 10-year forecast from 4.15% to 3.65% and the 2-year forecast from 3.65% to 2.70%. There are downside risks to the forecasts if a deeper recession ensues. In turn, they recommended adding longs in 2-year Treasuries this week, and recommend maintaining 2s/5s steepeners to hedge against the risks of a deeper easing cycle.

Next week we look for **+$10bn in tax-exempt supply** amidst an expected still volatile rates backdrop as we move through the early days following market-shifting tariff announcements, potential consideration of a unified budget resolution in the House (see below), and with the CPI report looming on Thursday. Despite these cross currents, **should UST rates stabilize** around current levels or rally further, we expect **municipal fund inflows** would follow from better asset class returns, as we anticipate **additional demand from relative value oriented investors.**

The **HG municipal scale was bumped by 8-12bps across the curve on Friday**, while **UST rate volatility** continued amid a risk off move in equities, as the market continues to digest the impacts of the Trump Administration's tariff announcements. The increase in tariffs has raised the **probability of a global recession from 40% to 60%** (*There will be blood*, Bruce Kasman, et al., 4/3/25). The Treasury market is priced between a shallow easing cycle and a recession. Our rates team assessed the potential impact on Treasury yields under these scenarios (see Figure 172) and ultimately recommend **adding duration via 2-year Treasuries** (*UST Daily*, Barry et al., 4/3/25).

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Figure 172: The Treasury market is currently priced between a shallow cutting cycle and a recession

Scenario analysis on Treasury yield levels under various Fed easing scenarios in 2025; %

Maturity	On hold	Shallow cuts	Recession	Probability weighted
2y	4.80	4.40	2.70	3.40
5y	4.60	4.20	2.80	3.38
10y	4.70	4.40	3.30	3.76
30y	5.00	4.80	3.90	4.27

Note: 5% probability applied to the “on hold” scenario, a 35% probability to the “shallow cuts cycle”, and a 60% probability to the “recession” scenario. Treasury yields regressed on 1y1y OIS over the last year and current level of breakevens held constant while shocking 1y1y OIS to 4.33%, 3.83% and 1.83%, respectively. As of 4/3/25
Source: J.P. Morgan

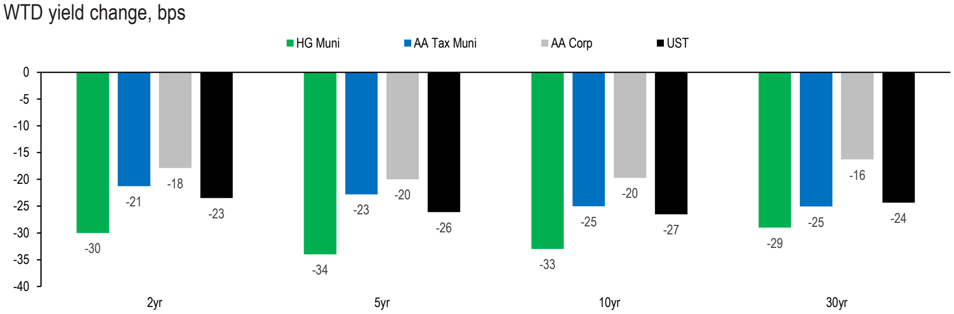
Scenario analysis
1. Growth doesn’t slow, inflation stays high, and the Fed stays on hold (5% probability).
Projected impact: Scope for yields to rise 50-110bps.
2. The Fed delivers a shallow 50bp cutting cycle as is our current US forecast (35% probability).
Projected impact: Scope for yields to rise 35-70bps.
3. A US recession drives the Fed to lower rates 250bp from current levels (60% probability).
Projected impact: Scope for yields to decline another 70-100bps.

Key takeaway: There is significant room for Treasury yields to decline to align with the weights ascribed in our probability tree.

Over what was a remarkable week for markets, HG municipal yields closed lower by 30-34-33-29bps in 2-5-10-30yrs, respectively, outperforming Treasuries by 7-8-6-5bps, respectively.

Figure 173: HG municipal yields ended the week lower by a remarkable 30-34-33-29bps in 2-5-10-30yrs, outperforming Treasuries by 7-8-6-5bps, respectively.

WTD yield change, bps



Source: Refinitiv, ICE, J.P. Morgan

Figure 174: Net supply is expected to be a headwind for the market through May of this year

Period	Redemption / Coupon / Refunding Payments ($bn)	Tax-Exempt Supply ($bns)	10yr UST Yield Change (bps)	Fund Flow ($bn)	10Yr Ratio Change (%)	IG Muni Total Return (%)
Jan 1-14	32	11	21	0.5	0.8%	-1.0%
Jan 15-31	8	23	-22	3.1	-2.6%	1.5%
Feb 1-14	18	20	-9	1.7	2.4%	0.2%
Feb 15-28	18	17	-19	0.9	-0.7%	0.7%
Mar 1-14	17	23	8	-0.3	4.8%	-1.4%
Mar 15-31	7	15	-5	-1.3	5.1%	-0.6%
Apr 1-14	17	16	-19	0.1	-0.6%	0.9%
Apr 15-30	6	22				
May 1-14	20	23				
May 15-31	13	19				

Note: as of 4/3/2025.
Source: Refinitiv, LSEG Lipper Fund Flow, Bloomberg Finance L.P., J.P. Morgan.

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Figure 175: Next week's economic calendar

7 Apr	8 Apr	9 Apr	10 Apr	11 Apr
Consumer credit(3:00pm) Feb	**NFIB survey**(6:00am) Mar Auction 3-year note $58bn	**Wholesale trade final**(10:00am) Feb Auction 10-year note (r) $39bn Richmond Fed President Barkin speaks(11:00am) **FOMC minutes**	**CPI**(8:30am) Mar **Initial claims**(8:30am) w/e Apr 5 **Federal budget**(2:00pm) Mar Auction 30-year bond (r) $22bn Announce 5-year TIPS $25bn Announce 20-year bond (r) $13bn Chicago Fed President Goolsbee speaks(12:00pm) Philadelphia Fed President Harker speaks(12:30pm)	**PPI**(8:30am) Mar **Consumer sentiment**(10:00am) Apr preliminary New York Fed President Williams speaks(11:00am)

Source: J.P. Morgan Economic Research

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Market Health and Liquidity

Bidwanted activity moderated this week,with offerings through Thursday down 5% vs. the five-week average and the traded ratio of 59% up 8ppts above the average. Amid the rally, yields on customer purchases were 3-10bps through evals across the curve.

- By duration, offerings were mixed, rising in short calls, 0-13months, and 5-10yrs, but falling in 1-5yrs and 10yrs+, relative to the average. However, hit ratios were up across the curve, by 54% (long-end) to 90% (0-13mo).
- By rating, offerings fell the most relative to average in the BBB category (-22%), with all other categories down a more modest 3-12%. Hit ratios were up across all categories, from 2% to 12%, save for a 3ppts decline in PreRe's.
- By sector, offerings were largely lower, save for Toll Road and Housing, which saw increases of 25% and 17%, respectively. Gas Prepay and Tax-Supported saw the most significant decreases of ~20%. Customer buy yields were 1-12bps through evals, with Gas Prepay lagging (-1bp).

Figure 176: Bidwanteds tapered somewhat, the hit ratio rose, and yields gapped lower

	BWIC Offered vs. Traded				MSRB Statistics				1mn+ Trade Level vs. Eval	
	BWIC Volume ($mn)	BWIC Volume vs. 5-wk Avg	BWIC Traded Ratio	Hit Ratio vs. 5wk Avg	Customer Buy ($mn)	Customer Buy vs. 5-wk Avg	Customer Sell ($mn)	Customer Sell vs. 5-wk Avg	Customer Buy Eval Delta (bps)	Customer Sell Eval Delta (bps)
Short-calls	4,533	1%	55%	8%	3,285	15%	3,253	12%	-10	-4
(0,13m]	502	2%	90%	5%	807	-24%	470	6%	-3	11
(13m,5y]	1,026	-16%	75%	8%	1,111	5%	961	8%	-3	-8
(5,10y]	951	3%	65%	8%	868	-8%	800	5%	-5	-4
(10,20y]	1,625	-19%	54%	8%	2,189	21%	1,725	18%	-8	-8
(20Y+]	1,188	-4%	54%	12%	2,473	14%	2,280	25%	-8	-8
Pre-Re	287	-12%	75%	-3%	212	-19%	230	-17%	5	7
AAA	1,977	-6%	63%	8%	2,143	2%	1,977	12%	-9	-9
AA	5,481	-3%	61%	12%	5,458	15%	5,085	22%	-7	-7
A	1,638	-7%	50%	2%	1,790	22%	1,506	8%	-5	-8
BBB	219	-22%	40%	2%	331	-2%	334	7%	-3	-5
HY/NR	221	-8%	51%	6%	798	-20%	357	-6%	1	5
Local GO	2,278	-4%	58%	9%	2,151	1%	1,813	11%	-7	-8
Water Sewer	958	-2%	64%	14%	961	4%	856	22%	-8	-7
General Purpose	854	-12%	59%	10%	1,097	16%	674	7%	-7	-9
Hospital	880	-7%	55%	12%	917	30%	808	18%	-4	-6
State GO	597	-8%	75%	14%	696	7%	702	32%	-8	-10
Higher Education	747	-5%	60%	8%	714	-7%	646	8%	-6	-9
Airport	283	0%	67%	11%	585	64%	580	62%	-4	-9
Other Transportation	572	-5%	54%	0%	574	10%	517	7%	-9	-9
Other Tax-supported	385	-19%	57%	7%	517	2%	489	6%	-10	-8
Excise Tax	353	-11%	57%	2%	415	-10%	418	2%	-11	-6
Electric Power	296	-14%	69%	14%	302	-3%	294	5%	-12	-11
Housing	266	17%	59%	9%	261	21%	270	40%	-5	-4
Special Tax	255	-5%	52%	1%	251	15%	241	16%	-10	-7
Toll Road	235	25%	67%	7%	204	-2%	224	16%	-12	-2
Gas Prepay	44	-20%	59%	-7%	204	-1%	183	-7%	-1	-9
Total	**9,824**	**-5%**	**59%**	**8%**	**10,732**	**8%**	**9,489**	**15%**		

Source: MSRB, Bloomberg Finance L.P., ICE, MarketAxess, MuniBrokers, J.P. Morgan. Note: Duplicate bonds excluded. Tax-exempt only. MSRB statistics shows secondary customer buy and customer sell only. Fixed, zero coupon, or adjustable putable bonds. Top 15 sectors were selected based on total customer buy and sell volume. 6yrs or greater to call used throughout, except for short-call, which includes less than 6yr calls. Eval delta by curve and sectors are calculated using IG bonds only. Data as of 4/3/2025

Yield and Ratio Charts

Tax-exempt ratios largely suggest value versus corporates and taxable municipals across the curve. In particular, **yields on long-dated HG munis are still high** and appear especially attractive when considering our **long-term projections for lower rates in 2025.**

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					3-year YIELD range				Historical Averages					
		Current	WTD Chg	MTD Chg	3y Min	● Current ▲ Last Month End ▬ 1yr range	3y Max	z-score	1yr Avg	3yr Avg	5yr Avg	10yr Avg	20yr Avg	30yr Avg
HG Yield (%)	2yr	2.45	-30	-23	1.60		3.70	-0.36	2.75	2.69	1.73	1.42	1.44	2.01
	5yr	2.59	-34	-27	1.76		3.51	0.28	2.70	2.59	1.77	1.60	1.82	2.46
	10yr	2.97	-33	-29	2.08		3.61	1.12	2.87	2.73	2.04	2.01	2.48	3.10
	20yr	3.81	-29	-25	2.42		4.33	1.50	3.53	3.38	2.60	2.58	3.17	3.81
	30yr	3.99	-29	-25	2.55		4.57	1.27	3.80	3.62	2.82	2.77	3.40	4.01
UST Yield (%)	2yr	3.67	-23	-24	2.34		5.22	-0.76	4.29	4.22	2.68	2.09	1.91	2.75
	5yr	3.72	-26	-26	2.64		4.96	-0.34	4.15	3.93	2.67	2.27	2.36	3.22
	10yr	3.99	-27	-26	2.55		4.99	0.26	4.28	3.92	2.84	2.54	2.90	3.71
	20yr	4.42	-23	-21	2.75		5.33	0.53	4.58	4.23	3.23	2.88	3.35	4.20
	30yr	4.39	-24	-23	2.58		5.10	0.74	4.50	4.08	3.19	2.98	3.49	4.25
AA Corp Yield (%)	2yr	4.09	-13	-13	2.67		5.65	-0.70	4.57	4.55	2.98	2.47		
	5yr	4.29	-16	-17	3.14		5.55	-0.30	4.56	4.44	3.16	2.84		
	10yr	4.76	-13	-13	3.21		5.68	0.39	4.82	4.59	3.53	3.31		
	20yr	5.36	-7	-7	3.62		6.08	0.82	5.24	5.03	4.09	3.86		
	30yr	5.39	-7	-6	3.55		5.83	1.15	5.22	4.91	4.12	4.06		
AA Taxable Muni Yield (%)	2yr	4.07	-16	-14	2.60		5.62	-0.79	4.57	4.59	3.10	2.50		
	5yr	4.22	-19	-17	3.16		5.61	-0.70	4.57	4.56	3.29	2.86		
	10yr	4.65	-19	-16	3.39		5.89	-0.31	4.87	4.79	3.66	3.38		
	20yr	5.34	-15	-11	3.92		6.31	0.18	5.36	5.26	4.27	4.04		
	30yr	5.26	-15	-11	3.93		6.12	0.34	5.20	5.13	4.23	4.09		

Source: Refinitiv, ICE, J.P. Morgan.
Note: HG muni and UST yields as of 3pm 4/4/2025, other data are assuming spread unchanged from prior business day.

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Tax-exempts are now cheaper versus taxable municipals and corporates throughout the curve. **Ratios are about 1-2 sigma cheap to taxable municipals throughout the curve,** relative to three-year averages, and **about 1.0 sigma cheap to corporates out to 20yrs on the curve.** While fund flows and reinvestment capital have been supportive year to date, we believe that range-bound to lower UST rates will again be essential to sustain municipal fund flows and market performance as the market moves through an expected less favorable technical period.

					3-year RATIO range				Historical Averages					
		Current	WTD Chg	MTD Chg	3y Min	● Current ▲ Last Month End ▬ 1yr range ◄ Richer Cheaper ►	3y Max	z-score	1yr Avg	3yr Avg	5yr Avg	10yr Avg	20yr Avg	30yr Avg
AAA HG/UST Ratio (%)	2yr	66.7%	-3.7%	-1.8%	50.3%		90.8%	0.62	64.2%	64.0%	78.7%	80.5%	88.9%	83.6%
	5yr	69.7%	-4.0%	-2.2%	53.5%		92.1%	0.84	65.1%	66.3%	71.5%	75.6%	81.4%	79.9%
	10yr	74.5%	-3.1%	-2.4%	56.4%		105.2%	0.61	67.1%	70.4%	78.2%	84.0%	88.4%	86.3%
	20yr	86.2%	-2.0%	-1.4%	71.1%		99.6%	1.09	77.1%	80.4%	83.3%	92.6%	96.5%	93.3%
	30yr	90.9%	-1.5%	-1.0%	79.2%		110.2%	0.23	84.5%	89.3%	89.9%	94.4%	98.3%	95.9%
AA TE Muni/Taxable Muni Ratio (%)	2yr	65.1%	-2.6%	-1.3%	47.6%		84.2%	0.55	63.2%	61.8%	53.1%	58.1%		
	5yr	67.8%	-2.6%	-1.2%	49.6%		81.3%	1.13	63.2%	61.4%	55.9%	60.0%		
	10yr	69.3%	-1.5%	-1.0%	48.9%		85.0%	1.12	62.1%	61.5%	61.5%	65.8%		
	20yr	75.8%	-1.0%	-1.0%	62.5%		81.8%	1.75	69.3%	69.8%	64.7%	68.3%		
	30yr	82.1%	-0.5%	-0.8%	70.0%		87.7%	1.60	78.2%	77.7%	71.9%	73.2%		
AA TE Muni/Corp Ratio (%)	2yr	64.7%	-3.1%	-1.4%	49.5%		82.9%	0.44	63.3%	62.3%	61.8%	61.4%		
	5yr	66.7%	-3.1%	-1.3%	52.8%		81.5%	0.75	63.3%	63.0%	59.6%	60.8%		
	10yr	67.7%	-2.3%	-1.4%	52.3%		86.1%	0.52	62.8%	64.1%	63.6%	67.1%		
	20yr	75.5%	-2.1%	-1.6%	66.1%		84.0%	0.69	70.9%	73.0%	67.7%	71.4%		
	30yr	80.0%	-1.9%	-1.5%	73.1%		91.4%	-0.36	78.0%	81.3%	73.6%	73.7%		

Source: Refinitiv, ICE, J.P. Morgan. Note: conditional formatting is based on current value and historical averages. Red indicates rich and green indicates cheap
Note: HG/UST ratios as of 3pm 4/4/2025, other data are assuming spread unchanged from prior business day.

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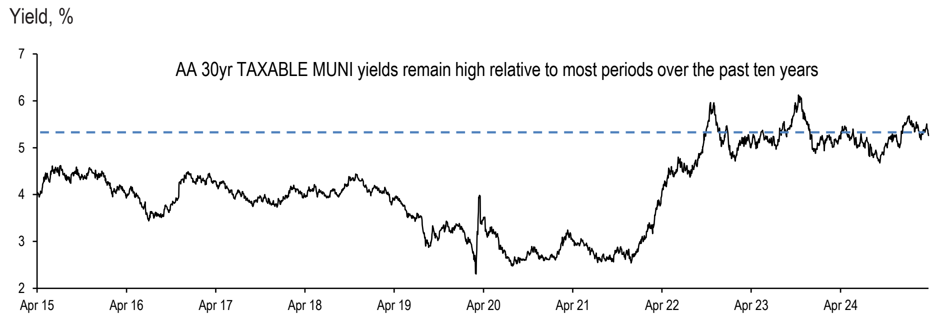

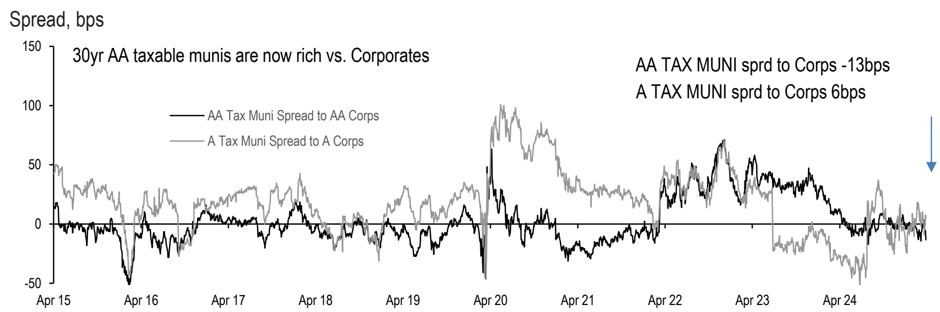

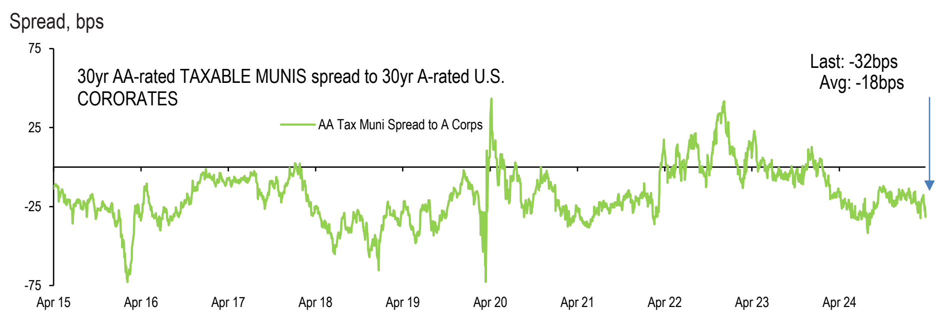

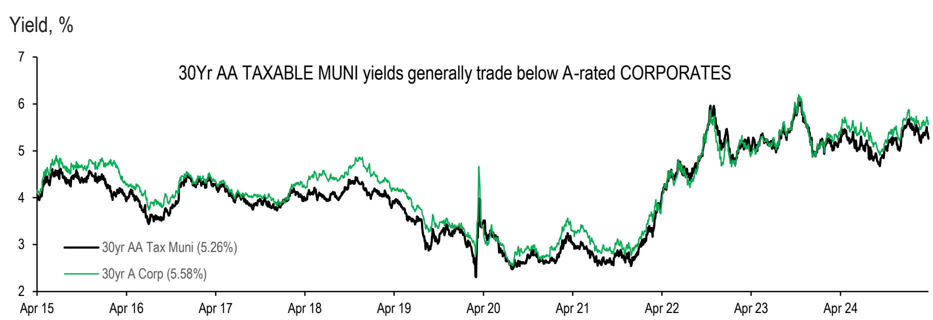

Source: ICE, J.P. Morgan. As of 4/3/2025.

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This week's economic calendar was eclipsed by tariff announcements

This week's economic calendar was **eclipsed by tariff announcements.** These pushed the **risks of US/global recession to 60% from 40% one month ago.** The tariff hikes since the start of the Trump administration now amount to the largest US tax hike in nearly 60 years. This would have direct ramifications on household and business spending and ripple effects through retaliation, a slide in business sentiment, and supply chain disruptions (*There will be blood*, Bruce Kasman, et al., 4/3/25). Please see above for our rates team's initial thoughts on the potential implications for Treasury yields.

Aside from tariffs, the calendar was headlined by this morning's employment report for March, which was solid. **Payroll growth was robust** as total payrolls rose 228k (209k private), though there were net downward revisions of 48k to the prior two months. The **unemployment rate** just barely managed to **round up** from 4.1% (4.14%) to **4.2%** (4.15%), **so really no change**, while the **participation rate rose** from 62.4% to 62.5%. The **workweek** in February was also **revised up** to 34.2 from 34.1 and then **remained at that level** in March, so **the hours worked picture for private industries now looks better**, rising 0.5%q/q saar in 1Q and 0.2%m/m in March. Aggregate hourly earnings rose 0.3%m/m (0.25%) and the over-year-ago pace fell to 3.8% from 4.0%. For the quarter, aggregate private payroll income rose 3.9%q/q saar, decent if a bit slower than the 4.9% average pace in 2024. Federal employment fell just 4k, less than feared. **For the Fed, today's number should dial back chances that the Committee would cut as soon as May, particularly since the April jobs report comes during the blackout period for that meeting** (Last curtain call for Goldilocks, Michael Feroli, 4/4/25).

Earlier in the week, labor market releases continued a theme of **labor market stability**. The ADP estimate of private payrolls was 155k in March. In February, the ADP had printed 84k, the smallest increase since July; so it was **a welcome sign to see the rate of growth rebound again** to a gain that is **very similar to the trailing 12-month and 3-month averages**, which are both 149k (*ADP not showing any jobs slowdown through March*, Abiel Reinhart, 4/2/25). On Tuesday, the **JOLTS** report for February showed the job opening rate fell from 4.7% to 4.5%, but zooming out, this and the opening-to-unemployment ratio have **largely held constant since mid last year**. Hires, quits, and layoffs rates were also all unchanged m/m. **Federal layoffs were about 15k higher than normal as job cuts begin to bite in that sector**, though that is a small share of the almost 1.8mn layoffs and discharges in February (*Look elsewhere to get a morning JOLT(S)*, Abiel Reinhart, 4/1/25). On Thursday, **initial jobless claims** for the week ending March 29 **dropped to 219k from 225k** in the prior week, suggesting a **steady level of job growth**. However, continuing claims for the week ending March 22 increased to 1.903mn, marking the highest level since mid-November 2021 (Continuing claims suggest small u-rate increase soon, Abiel Reinhart, 4/3/25).

Turning to **manufacturing**, the March PMI and ISM readings affirmed that **conditions weakened** this month, with slowing growth or contraction in orders, output, and employment. **Price pressures continue to mount**, with tariffs contributing (*PMI and ISM confirm weaker manufacturing in March*, Abiel Reinhart, 4/1/25).

In terms of **services**, survey data for March were **mixed**: the business activity indexes in the **PMI** and **ISM both improved** vs. February, pointing to some pickup in growth at the end of 1Q, and the PMI new orders and employment indexes both rose, **but the overall ISM composite fell** as the **employment index dropped** close to 8pts, to its

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second lowest reading of this cycle (A mixed set of services reports for March, Abiel Reinhart, 4/3/25)

Finally, construction spending for February surprised to the upside at +0.7% (consensus: +0.3%), though January spending was revised lower to down 0.5% vs. prior down 0.2%. Within the report, **public construction spending rose 0.2% m/m**, with an increase in Highway & Street and Education, partially offset by a decrease in Transportation and Sewage & Waste. Construction spend in **Data Centers** was **up 1.7% sequentially** in February and **38.8% YoY** (*US Construction*, Tami Zakaria, 4/1/25).

Figure 177: Public construction spending rose 0.2% m/m in February (36% above prior peak)…

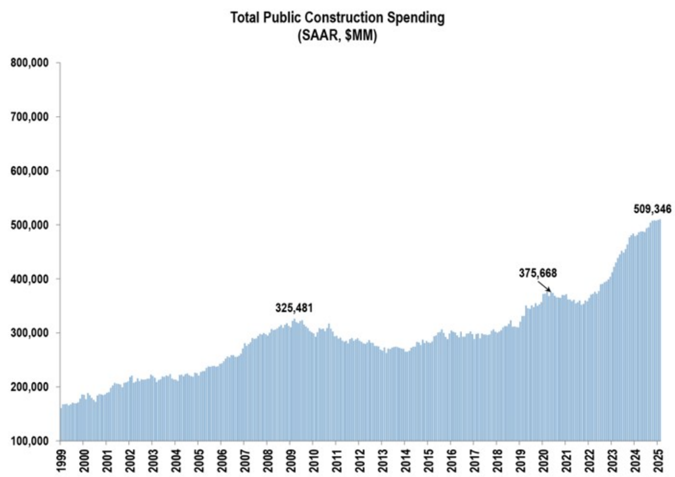
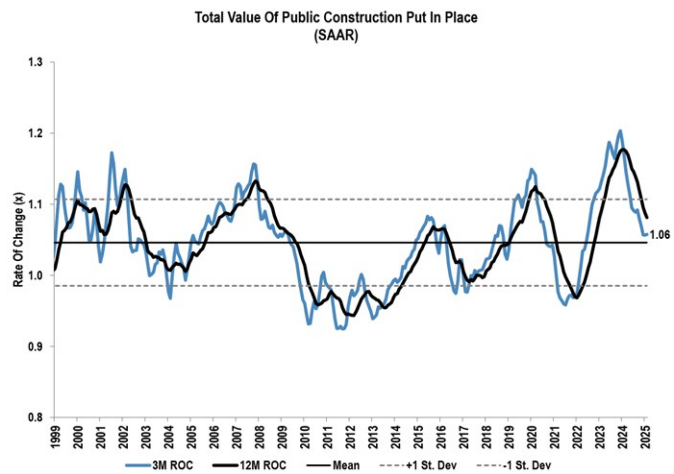


Figure 178: …the 3M ROC Is Stabilizing >1.0



Source: US Census Bureau, J.P. Morgan Equity Research

We expect new issuance to remain elevated next week

We expect tax-exempt supply to surpass the $10bn mark again next week (~ $10.9bn), which, if realized, would represent 1.7x the trailing 5-year average for the equivalent week. Meanwhile, taxable supply is expected to remain muted at around $450mn, or 22% the average. This would bring gross supply to $11.3bn, or 1.4x the average. In case you missed it, March issuance statistics are available in our *Municipal Monthly Index and Data Chartbook* (4/1/25).

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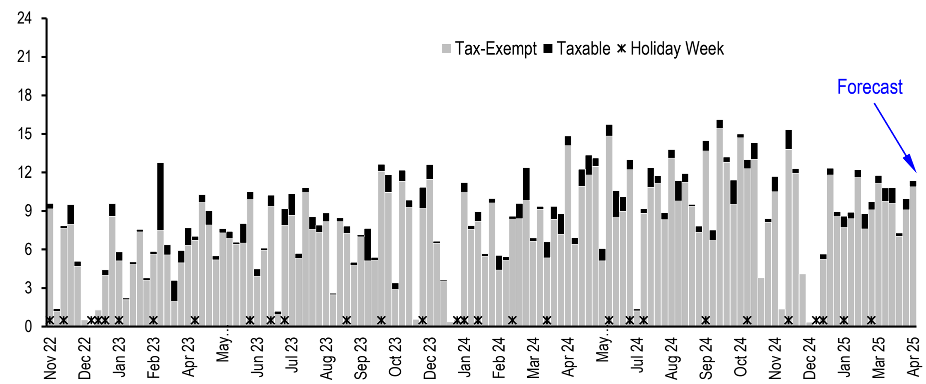
Figure 179: Historical and forecast weekly municipal issuance

Weekly Issuance, $bn's



Source: IPREO, Bloomberg Finance L.P., J.P. Morgan

For the week ending 4/2/25, LSEG Lipper reported outflows of $232mn, marking a fourth consecutive negative week

For the week ending 4/2/25, LSEG Lipper reported **outflows of $232mn,** marking a fourth consecutive negative week. Outflows were driven entirely by **open-end funds (-$238mn) with ETF flows virtually flat (+$6mn).** Recall, LSEG Lipper adjusts for reinvestment capital. Flows were mixed in terms of duration (***LT -$364mn*** *vs. ST + $164mn*) but uniformly negative when measured by credit quality (***IG -$136mn and HY -$96mn***). This marked the first weekly outflow from HY funds since Dec 2024 (*Municipal Weekly Fund Flows Update*, 4/3/25).

Weekly Only Reporters	Fund Flows ($mn)		
Week ended Apr 2, 2025	Total	Open-end Funds	ETF Funds
All term muni	(232)	(238)	6
Investment Grade	(136)	(240)	104
High Yield	(96)	2	(98)
Long Term (10yr+)	(364)	(264)	(100)
Intermediate (5-10yr)	(44)	(42)	(3)
Short / Intermediate (3-5yr)	12	17	(4)
Short (1-3yr)	164	50	114
National funds	(179)	(261)	81
New York	(5)	(3)	(2)
California	(59)	15	(74)
Tax-exempt money market	1,866		
Taxable money market	19,975		
Taxable Fixed Income	(399)	273	(672)
US & Global Equity	(9,770)	(10,190)	420

Source: LSEG Lipper Global Fund Flows, J.P. Morgan. Note: Figures shown on this table are weekly reporters only. Data refreshed on 4/3/25, 2:00pm read.

Year-to-date municipal fund flows are now tracking around **+$9.8bn (+$6.4bn open-end funds/+$3.4bn ETFs)**, **concentrated in terms of duration** (+$5.1bn Long Term), but near evenly distributed in terms of **credit quality** (+$5.1bn IG /+$4.7bn HY).

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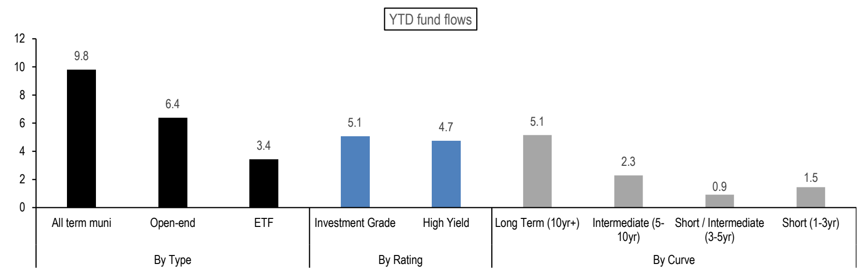
YTD fund flow, $bn



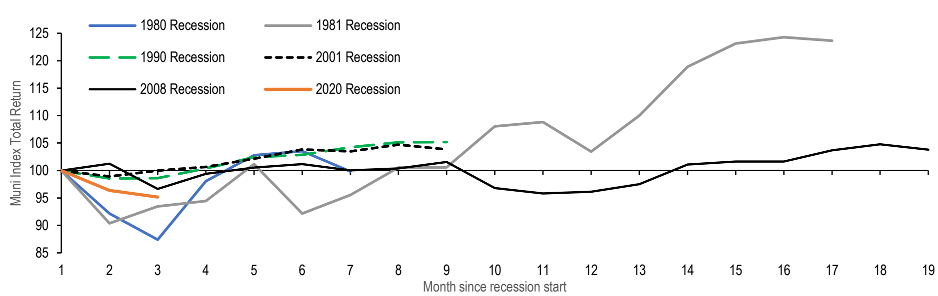
Source: LSEG Lipper Global Fund Flows, J.P. Morgan. Note: Figures shown on this table are combination of weekly and monthly reporters. Data refreshed on 4/3/25 at 2:00pm. Includes all weekly and monthly flows recorded to date. Data may be updated in future business days of the month.

The IG and High-yield municipal markets have seen mixed but resilient performance over the last three recessions

This week, our global economist raised their forecast for the **probability of a U.S./ global recession from 40% to 60%.** This section examines the **performance of municipal bonds during past recessions, including fund flows, and sector performance.** As illustrated in Figure 180, we have plotted the performance of the Bloomberg Municipal Bond Index (LMBITR) during each recession since 1980. Generally, **municipal bonds have provided positive returns by the end of each recession period.** However, during certain recessionary periods, such as 1980-1981, 2008, and 2020, municipal bonds experienced some bout of negative returns about mid-way through the downturn.

The 1980 and 1981 recessions were characterized by rampant inflation and economic instability. Given the impact of stagflation, **the Federal Reserve implemented an aggressive tightening campaign**, which led to a protracted bond market sell-off. Additionally, event related recessions in 2008 (credit crisis) and 2020 (COVID-19) were coupled with extreme market events, causing widespread concern among investors **permeating the broader financial markets.** As such, significant outflows from both bond and equity funds contributed to negative returns during the middle of these recessions.

Figure 180: Generally, municipal bonds have provided positive returns by the end of each recession period. However, during some recession episodes, such as those in 1980-1981, 2008, and 2020, municipal bonds experienced negative returns in the middle of the recessions



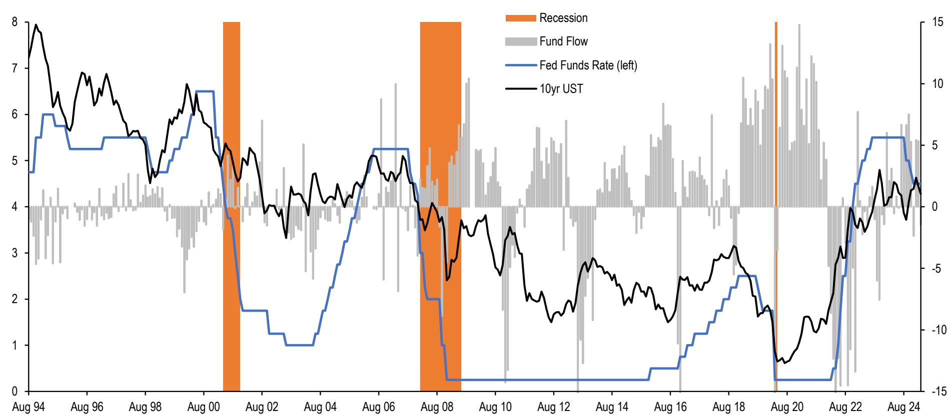
Source: Bloomberg Finance L.P., J.P. Morgan.

In a recession scenario that is not associated with extreme events or does not broadly impact the overall financial markets (such as the 2008 Global Financial Crisis or the COVID-19 pandemic), **we believe that yields would generally move lower**

throughout the recession. This trend is supportive of fund inflows and solid municipal bond total returns. However, **in an extreme event, where all asset classes are impacted, outflows would likely be unavoidable.**

In Figure 10 below, we show our full history of fund flows (back to 1992), 10-year UST yields, and the Federal Funds rate during the most recent three recession periods. As shown in Figure 181, the dot-come bubble recession in 2000 recession was largely a tech-sector event, and as such, there were no significant municipal bond outflows during this period. The 2008 recession also started with inflows into municipal bond funds, while after Lehman Brothers' bankruptcy, **outflows were triggered but the period generally saw strong inflows.**

Figure 181: The 2000 recession was largely driven by the burst of the dot-com bubble, and as such, there were no significant municipal bond outflows during this period. In contrast, both the 2008 and 2020 recessions experienced some outflows in the middle of the recession, amidst inflows over the broader period



Source: LSEG Lipper Global Fund Flow, J.P. Morgan.

Next, we compared the **performance of U.S. Treasuries, IG and HY corporate bonds, and various municipal sectors and curves (IG only)** during the past three recessions, as well as their performance one year after each recession (Figure 182). In the table below, we observe that since the 2000 recession did not trigger a bond outflow cycle, the performance of investment-grade municipal bonds during and after the recession was consistently positive. In contrast, the **extreme events during 2008 and 2020 recessions** led to some outflows, causing the high-yield and some riskier sectors (such as hospitals, industrial development revenue bonds, and tobacco) **to underperform during the recession, before rebounding considerably post-recessions.** It is noteworthy, however, that these high-beta sectors significantly outperformed in the post-recession period.

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Figure 182: Since the 2000 recession did not trigger a bond outflow cycle, the performance of investment-grade municipal bonds during and after the recession was consistently positive. In contrast, the extreme events during 2008 and 2020 recessions led to some outflows, causing the high-yield and some riskier sectors (such as hospitals, industrial development revenue bonds, and tobacco) to underperform during the recession, before rebounding considerably post-recessions.

UST, Corp and Muni sector and curve performance during the past three recessions.

	2000 Recession		2008 Recession		2020 Recession	
	During Recession	One Year post Recession	During Recession	One Year post Recession	During Recession	One Year post Recession
IG Muni	3.83	6.32	4.08	9.61	-3.61	7.75
HY Muni	1.65	-0.27	-16.41	21.90	-12.19	20.78
IG Corp	6.47	6.08	3.13	15.92	-0.91	4.46
HY Corp	-0.61	-3.16	-3.40	26.77	-8.78	19.67
UST	5.31	7.90	8.93	6.67	6.29	-4.32
Hospital	6.09	6.03	-1.30	13.78	-6.04	11.53
Housing	3.66	4.99	2.47	11.09	-2.83	6.19
IDR/PCR	4.78	4.71	-9.92	19.75	-5.16	9.95
Transportation	2.74	6.48	2.53	11.06	-5.48	10.37
Education	3.90	6.55	4.94	9.60	-2.66	6.60
Water & Sewer	3.89	6.43	5.98	9.28	-2.18	6.25
Leasing	3.74	6.12	4.06	9.93	-6.32	11.02
Special Tax	3.99	6.51	3.74	10.28	-3.74	7.04
Tobacco Index			-8.46	17.20	-4.77	10.59
GO Bond Index	3.57	6.24	6.27	8.86	-2.56	6.58
Electric	3.97	5.97	4.82	9.59	-2.42	6.49
State GO	3.58	6.45	5.50	9.04	-2.67	6.52
Local GO	3.55	6.01	7.25	8.61	-2.44	6.63
Revenue Bond	3.96	5.95	1.77	11.28	-4.34	8.74
IG 1yr	3.40	3.45	7.14	2.43	-0.07	1.75
IG 3yr	3.96	5.11	9.19	4.30	-0.89	3.60
IG 5yr	3.79	6.62	9.39	6.88	-2.35	5.66
IG 7yr	3.37	7.02	8.21	8.14	-3.01	6.68
IG 10yr	3.34	6.67	6.26	9.58	-3.28	7.36
IG 15yr	3.75	7.08	4.35	10.23	-4.39	9.32
IG 20yr	4.06	6.46	1.72	11.80	-4.66	9.89
IG Long	4.33	6.09	-4.41	14.99	-6.08	11.45

Note: Performance was calculated using month end data of Bloomberg indices. 2001 Recessions: Mar 2001 - Nov 2001. 2008 Recession: Dec 2007 - June 2009. 2020 Recession: Feb 2020 - April 2020.
Source: Bloomberg Finance L.P., J.P. Morgan.

Tracking the reconciliation process

Following a procedural vote Thursday night, which passed 52-48 with Sen. Rand Paul (R) and all Democrats opposing, Senate Republicans are set to initiate a vote-a-rama on their **compromise budget resolution** tonight, with **passage anticipated early tomorrow morning.** Subsequently, the House aims to address the measure next week (Punchbowl News). As laid out by the latest analysis from American Action Forum, key elements of **the Senate's resolution include:**

- Use of the **"current policy" baseline,** which zeroes out the $3.8 trillion cost of extending the 2017 tax cuts; including this implicit cost **increases the amount of borrowing** that would be allowed under the budget to $5.8 trillion.
- Reconciliation instructions to 10 Senate committees that would **allow up to $2 trillion of new borrowing** over the FY 2025–2034 budget window, as well as instructions to **11 House committees that would allow up to $3.3 trillion of new borrowing.**
- Instructions to the House committees includes the **$1.5 trillion in cuts** prescribed in the House-passed budget, including **$880 billion from the Energy and Commerce Committee,** which is responsible for Medicaid.
- Increase in the **debt ceiling by $5 trillion.**

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Figure 183: The Senate budget resolution maintains the reconciliation instructions in the House-passed budget

House Committee	Senate Budget	House-Passed Budget	Increase or Decrease Deficits?
Ways and Means	$4,500 billion	$4,500 billion	Increase
Judiciary	$110 billion	$110 billion	Increase
Armed Services	$100 billion	$100 billion	Increase
Homeland Security	$90 billion	$90 billion	Increase
Financial Services	-$1 billion	-$1 billion	Decrease
Natural Resources	-$1 billion	-$1 billion	Decrease
Transportation and Infrastructure	-$10 billion	-$10 billion	Decrease
Oversight and Government Reform	-$50 billion	-$50 billion	Decrease
Agriculture	-$230 billion	-$230 billion	Decrease
Education and Workforce	-$330 billion	-$330 billion	Decrease
Energy and Commerce	-$880 billion	-$880 billion	Decrease
Total	**$3,298 billion**	**$3,298 billion**	
Gross Deficit Increases	***$4,800 billion***	***$4,800 billion***	
Gross Deficit Decreases	***-$1,502 billion***	***-$1,502 billion***	

Source: American Action Forum

Figure 184: ...and adds instructions for its own committees, that would allow up to $2.0 trillion of new borrowing

Senate Committee Reconciliation Instructions in the Senate's FY 2025 Budget Resolution

Senate Committee	Senate Budget	Increase or Decrease Deficits?
Finance	$1,500 billion	Increase
Homeland Security and Government Affairs	$175 billion	Increase
Judiciary	$175 billion	Increase
Armed Services	$150 billion	Increase
Commerce, Science, and Transportation	$20 billion	Increase
Environment and Public Works	$1 billion	Increase
Agriculture, Nutrition, and Forestry	-$1 billion	Decrease
Banking, Housing, and Urban Affairs	-$1 billion	Decrease
Energy and Natural Resources	-$1 billion	Decrease
Health, Education, Labor, and Pensions	-$1 billion	Decrease
Total	**$2,017 billion**	
Gross Deficit Increases	***$2,021 billion***	
Gross Deficit Decreases	***-$4 billion***	
Hidden Cost from Current Policy Baseline	***$3.8 trillion***	
Total with Current Policy Baseline	***$5.8 trillion***	

Source: American Action Forum

Once both chambers adopt a resolution, Republicans will still face the intricate task of finalizing the details of a reconciliation bill. This process is fraught with challenges, **particularly concerning the scale of potential Medicaid cuts,** overall spending reductions, and the application of the untested **"current policy" scoring method.** The latter could encounter an unfavorable ruling from the parliamentarian, potentially necessitating a vote to overrule—a move Senate Majority Leader John Thune has likened to dismantling the filibuster (Punchbowl News).

Historically, the average time from the **adoption of a congressional budget resolution to the enactment of the reconciliation bill spans about five months** (*Municipal Markets Weekly*, 3/27/25). However, even if a unified resolution is achieved next week as planned, we anticipate **the timeline could stretch into late 4Q.** This extension is due to the aforementioned challenges and the increasing risk of a recession in 2Q/3Q. Naturally, prolonged uncertainty regarding the bill's provisions **negatively impacts municipal market liquidity to some degree.**

Executive order to dismantle the Education Department is largely symbolic and we expect minimal impact on the K-12 sector. However, mass layoffs (50% of the workforce) could diminish the ED's capacity to fulfill its core functions, and threatens research utilized by muni market participants

It is worth starting this section with the context that **public education in the U.S. is largely funded and managed by state and local governments.** As outlined herein, the federal government, including the Department of Education (ED), **plays a relatively minor role** in terms of financial and operational involvement.

In more detail, while the federal government has annually provided billions of dollars in support for public education, **federal funding has accounted for just 9.2% of the annual revenue provided** for public education on average nationwide since FY 2000 (Figure 186).

Naturally, the federal share of public school funding is **higher in years when the federal government has provided supplemental aid** in response to a national crisis, including the Great Recession in FY2010 through FY2012 and the COVID-19

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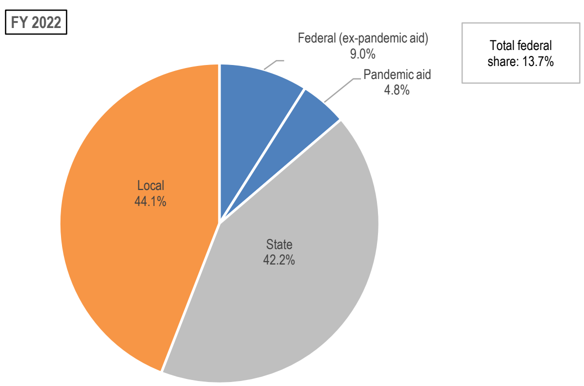
pandemic in FY2021 and FY2022, **Pandemic aid represented about 35% of total federal revenue during the 2021-22 school year,** which is the latest year of data available for all 50 states (Figure 185).

Figure 185: Federal funding accounted for 13.7% of total public education revenue in FY22 (the latest data available), but this was boosted by one-time pandemic aid...

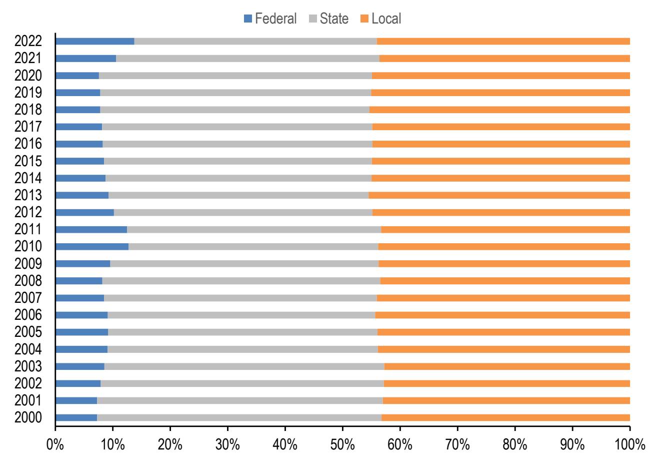
Share of total public education funding, FY 2022 (%)



Source: National Center for Education Statistics

Figure 186: ...on average, since FY 2000, the federal government has accounted for closer to 9% of total revenue

Share of total public education funding (%)



Source: National Center for Education Statistics

Executive order to dismantle the ED has been subject to legal scrutiny. Abolishing the department and/or the programs it administers would require Congressional action

On March 20, President Trump issued an executive order titled **"Improving Education Outcomes by Empowering Parents, States, and Communities"** that directs the Secretary of Education to:

- (i) "To the maximum extent appropriate and permitted by law, take all necessary steps to **facilitate the closure of the Department of Education** and return authority over education to the States and local communities while ensuring the effective and uninterrupted delivery of services, programs, and benefits on which Americans rely"; and
- (ii) "Consistent with the Department of Education's authorities" to "ensure that the **allocation of any Federal Department of Education funds is subject to rigorous compliance** with Federal law and Administration policy, including the requirement that any program or activity receiving Federal assistance terminate illegal discrimination obscured under the label "diversity, equity, and inclusion" or similar terms and programs promoting gender ideology."

Consistent with the second directive, yesterday, the ED sent letters to state K-12 agencies giving them a deadline of **10 days to certify** that they are in compliance with federal civil rights laws and ending any discriminatory diversity, equity and inclusion practices, **in order to maintain federal funding** (text of the letter here). It may be worth noting that similar actions, like the president's executive order, "Ending Radical Indoctrination in K-12 Schooling," have encountered legal scrutiny. The EO described above in particular is facing two legal challenges, here and here.

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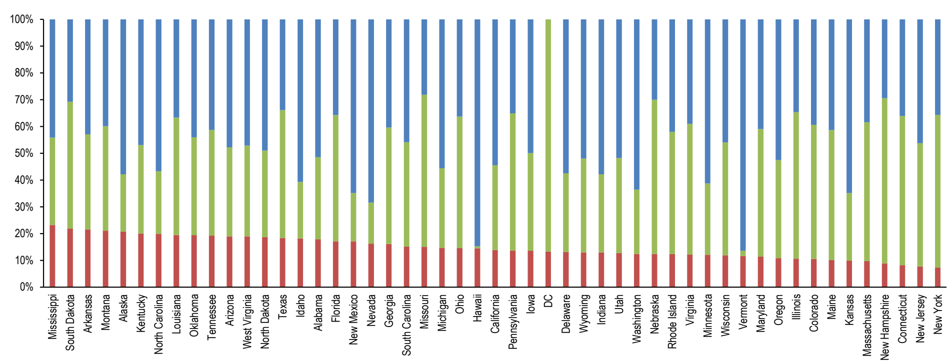
The ED's mission is to "promote student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access." It is tasked with **overseeing federal education programs, safeguarding students' civil rights, and investing in educational research.**

As laid out by Brookings, **the department was created through an act of Congress,** and dismantling it would necessitate another congressional act. Abolishing the department would impact both political parties, and as shown in Figure 187, the top 18 states that **rely most heavily on federal revenue for public education funding are represented by Republic senators.** Federal revenue can regularly exceed 10% of total revenue for public education in these states. These factors make it a heavy lift to achieve the 60-vote threshold needed in the Senate.

Even in the unlikely event the ED is dismantled, legislation such as the Elementary and Secondary Education Act, which encompasses the **Title I program, and the Individuals with Disabilities Education Act (IDEA)** would continue to exist, and other agencies would need to take on the responsibilities currently held by ED, per Brookings. Many of these programs, including Title I and IDEA, enjoy strong, bipartisan political support, largely because they offer resources and protections to students nationwide. Additionally, these programs allocate money according to formulas defined by Congress, meaning ED does not decide how much each district receives but is simply responsible for distributing funds according to the congressionally-defined formulas. The formulas consider factors such as poverty levels and other student demographics, availability of state and local revenues, and whether a district is urban, suburban, or rural. This could limit the administration's legal ability to target specific districts.

Figure 187: The 18 states with the highest share of reliance on federal revenue for total public education funding are represented by Republican senators

Source of revenues for public education by state, FY 2022



Source: National Center for Education Statistics

<u>The more prevailing risks include mass layoffs and potential budget cuts in the reconciliation bill</u>

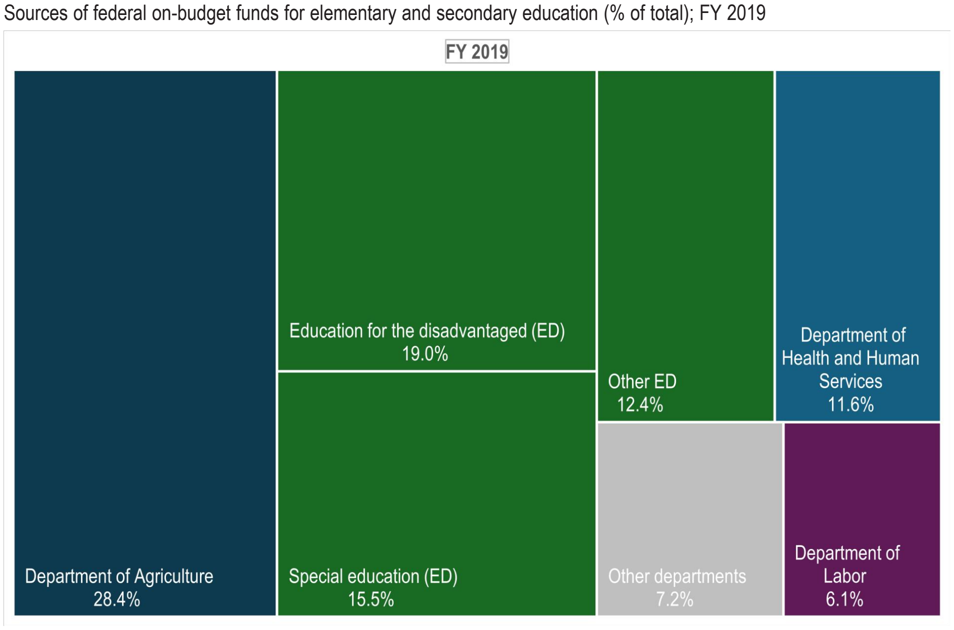
That all said, the **mass layoffs** at the Department, announced on March 11, impacting **nearly 50% of its workforce,** could diminish ED's capacity to fulfill its core duties. Reports indicate that the layoffs were primarily concentrated in the ED's Office of Federal Student Aid (which administers the federal student loan portfolio), Office for Civil Rights (responsible for enforcing federal civil rights laws), and the Institute of

Education Sciences (NPR), including nearly all staff at the National Center for Education Statistics (NCES) (Inside Higher Ed). **The NCES is the primary federal entity for collecting and analyzing data related to education.** From a municipal market perspective, less visibility into sector data and trends is a clear negative. Indeed, the NCES is the source for many of the charts and data points we reference herein. It also presents longer-term social risks as the information available on the efficacy of various educational strategies diminishes, and could decrease the data available to the federal government in determining how to distribute money, according to Moody's.

As discussed above, **cutting ED funding in Congress would be politically challenging.** However, the ongoing budget reconciliation process presents an opportunity for such cuts to be made with only a simple majority in the Senate. Additionally, federal revenue for education includes funds not only from the ED but also from other federal agencies, such as the Department of Health and Human Services' (HHS) Head Start program and the Department of Agriculture's (USDA) School Lunch program, and some of these programs enjoy less political support than the ED's. Specifically, over 2014-2022 (ex. 2020 and 2021, to control for one-time influence from pandemic aid), on average, **the ED has only accounted for about half (47%) of total federal on-budget funds for public education,** with the remaining 53% attributed to programs administered by the USDA, HHS, Department of Labor and various other departments and agencies. We present this data for the last pre-pandemic year (2019) in Figure 188. Note that this data is based on-budget funding only, as opposed to all federal revenue for public education depicted in other figures here. However, as a proxy, this would suggest that **the ED itself accounts for closer to 4% of total annual revenue for public education.** Given the nature of the programs, federal funding reductions would primarily affect districts with a high number or percentage of economically disadvantaged students (Moody's).

Figure 188: The Education Department alone typically only accounts for about half of federal funds budgeted for public education

Sources of federal on-budget funds for elementary and secondary education (% of total); FY 2019



Source: National Center for Education Statistics

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BAB ERP Tracker

Since 2024, we have identified 50+ unique issuers with BAB ERP activity. Six have outstanding conditional calls (set to impact ~$0.9bn of debt), and 12 have announced that they are considering financing plans in this regard (potentially impacting $6.1bn of debt). **In aggregate, BAB ERP activity since 2024 totals about $25.6bn.**Please note that this list is constantly evolving. A copy of our latest BAB ERP tracker with CUSIP-level detail for 2025, updated daily, can be found here.

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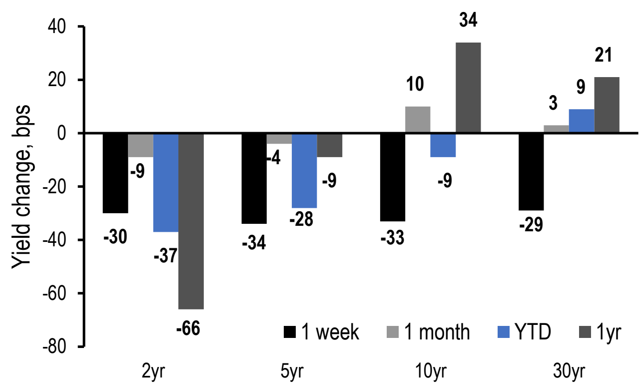
Markets at a glance

Figure 189: HG muni yield change over various time horizons



Source: Refinitiv, J.P. Morgan. Note: As of 4/4/2025

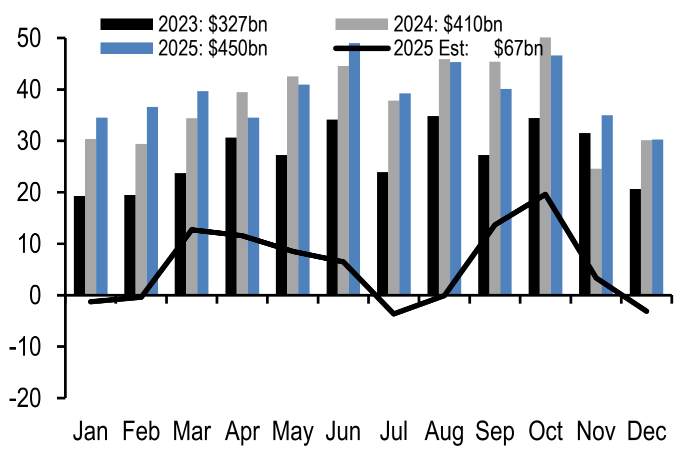
Figure 190: J.P. Morgan rate forecast

Treasury	04/04//2025	2Q25 Forecast	3Q25 Forecast	4Q25 Forecast	1Q26 Forecast
2yr	3.67	3.50	3.05	2.70	2.70
5yr	3.72	3.65	3.30	3.05	3.05
10yr	3.99	3.95	3.75	3.65	3.65
30yr	4.39	4.35	4.20	4.15	4.15
AAA Tax-exempt					
2yr	2.45	2.35	2.15	1.65	1.70
5yr	2.59	2.50	2.35	1.90	2.05
10yr	2.97	3.20	2.85	2.70	2.65
30yr	3.99	4.20	3.85	3.70	3.70
AAA / TSY Ratios					
2yr	67%	67%	70%	61%	63%
5yr	70%	68%	71%	62%	67%
10yr	74%	73%	76%	74%	73%
30yr	91%	90%	92%	89%	89%

Source: Refinitiv, J.P. Morgan.

Figure 191: Tax-exempt gross and net supply

Gross and net supply, $bn



Note: tax-exempt only.
Source: Bloomberg Finance L.P., J.P. Morgan

Figure 192: Tax-exempt AA Muni/Corp ratios

AAA tax-exempt yield / Treasury yield (%)	Last	Min	Max	Mean	St. Dev.	Z-score 3yr	Z-score 5yr
2yr	67.9	60.8	70.4	64.6	2.1	0.3	0.6
5yr	71.6	62.0	73.7	66.0	3.0	0.3	0.5
10yr	76.2	64.8	77.6	68.9	3.8	0.3	0.3
30yr	90.8	79.2	92.8	86.1	3.8	0.1	0.3

AA corporate yield - AA tax-exempt yield (bp)	Last	Min	Max	Mean	St. Dev.	Z-score 3yr	Z-score 5yr
3-5yr	160	152	200	183	12	0.6	1.0
5-7yr	163	156	207	189	13	0.6	0.9
7-10yr	170	162	216	195	14	0.6	0.8
25yr	112	98	157	124	15	0.4	0.7

yy indicates rich   **yy** indicates cheap

Source: Refinitiv, J.P. Morgan
Note: Values over last 3 months displayed, as of 4/3/25

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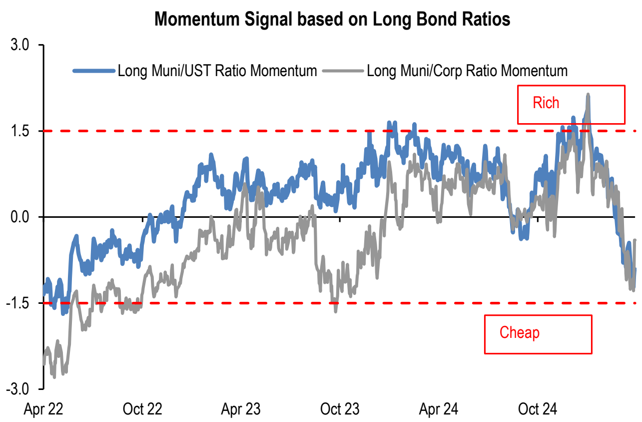
Technical Momentum Signals

Figure 193: Muni/UST and Muni/Corp relative value momentum signal based on long bond ratios

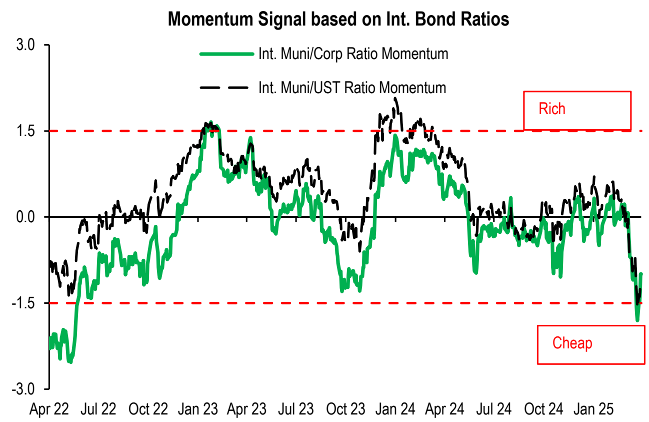
Momentum signal



Note: as of 4/3/2025
Source: Refinitiv, J.P. Morgan

Figure 194: Muni/UST and Muni/Corp relative value momentum signal based on intermediate bond ratios

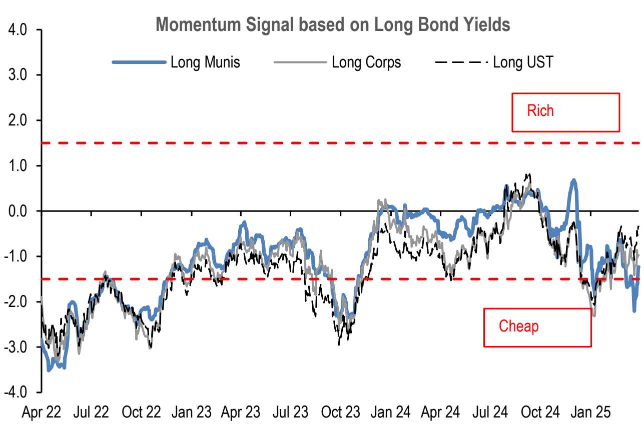
Momentum signal



Note: as of 4/3/2025
Source: Refinitiv, J.P. Morgan

Figure 195: Momentum signal based on long bond yields

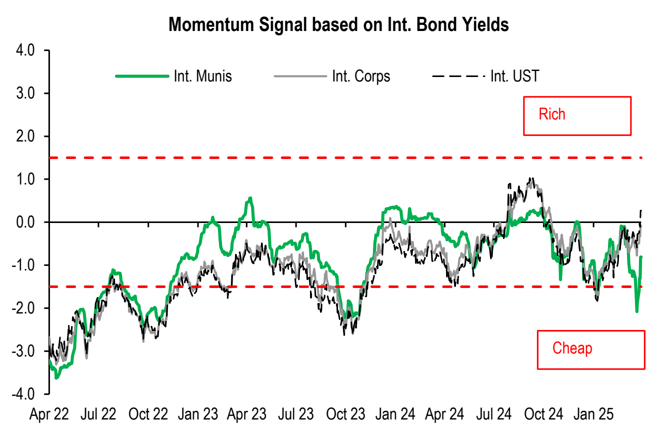
Momentum signal



Note: as of 4/3/2025
Source: Refinitiv, J.P. Morgan

Figure 196: Momentum signal based on intermediate bond yields

Momentum signal



Note: as of 4/3/2025
Source: Refinitiv, J.P. Morgan

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YTD Issuance and Trading Trends

Figure 197: YTD issuance by maturity bucket relative to 2024 and the past 10yrs

Proportion of issuance, %

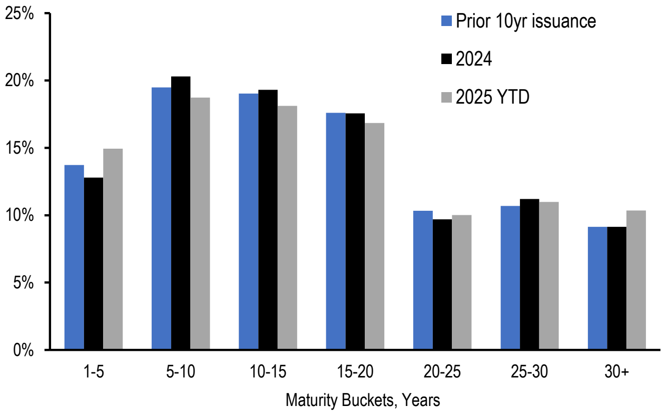


Figure 198: YTD issuance by coupon bucket relative to 2024 and the outstanding market

Proportion of issuance, %

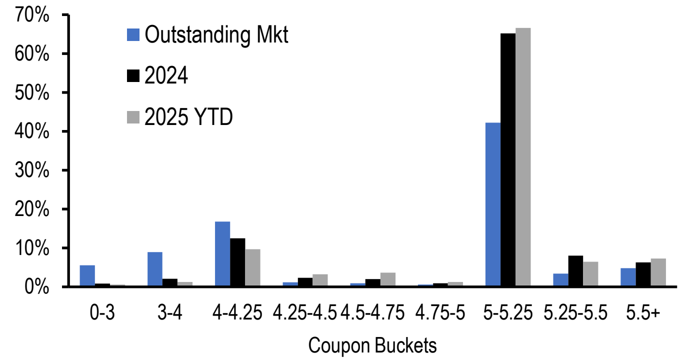
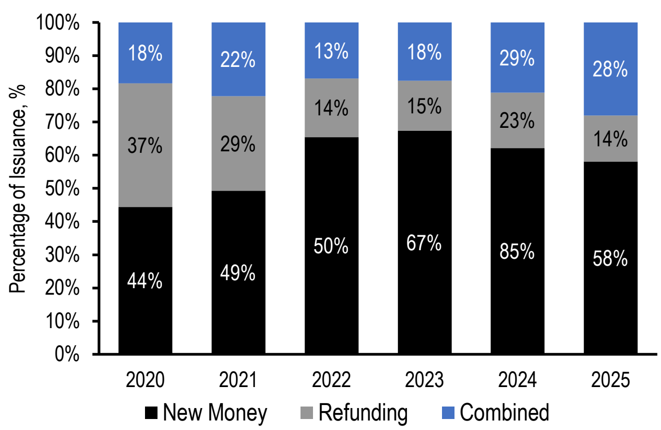
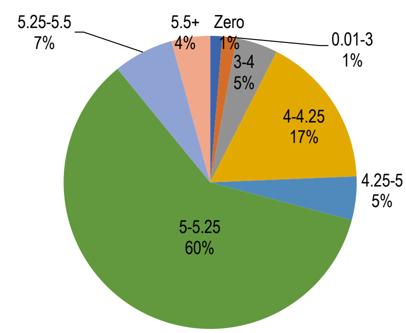


Figure 199: YTD issuance by purpose



Source: Bloomberg Finance L.P., J.P. Morgan
Note: Long term bonds only. As of 4/3/25

Figure 200: YTD trading volume by coupon type



Source: MSRB, ICE, J.P. Morgan
Note: Long term, fixed coupon, tax-exempt bonds

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YTD total return and curve spreads

Figure 201: YTD total returns

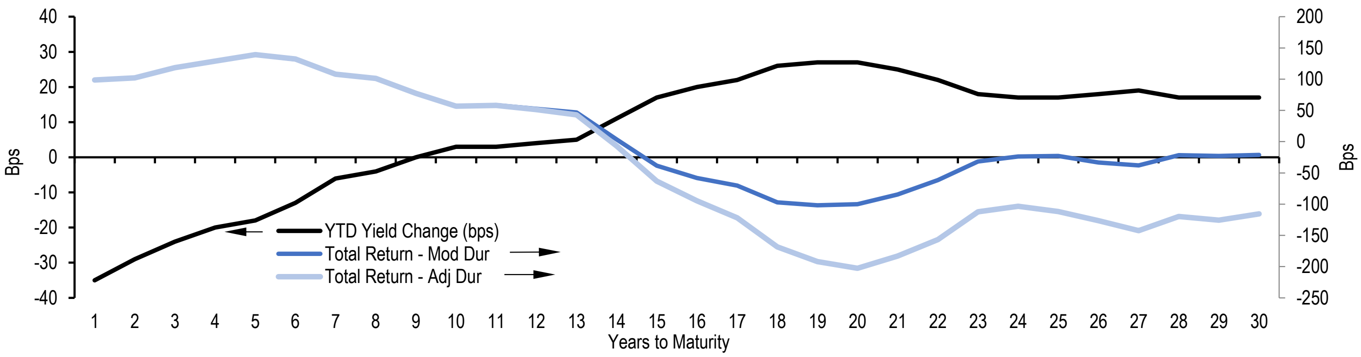


Figure 202: The 2s/30s curve is 1.8 sigma above its one year average

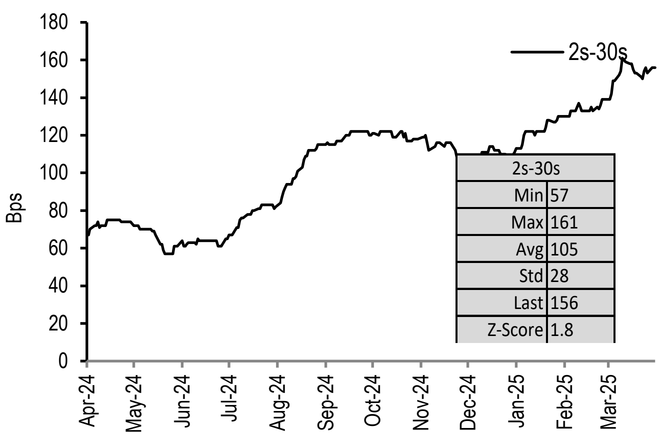
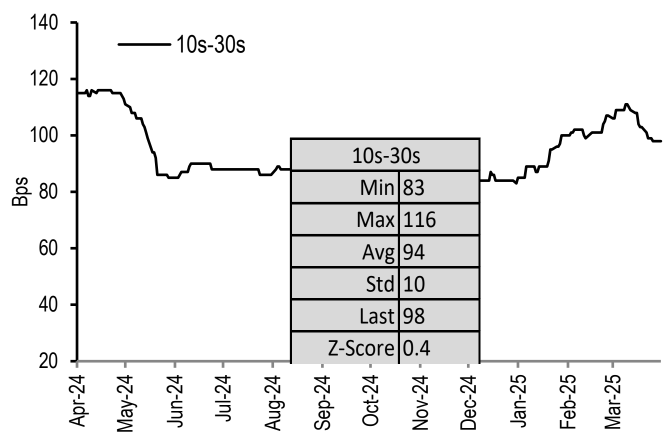


Figure 203: The 10s/30s curve is 0.4 sigma above its one year average



Source:

Figure 204: The 5s/10s curve is 1.6 sigma above its one year average

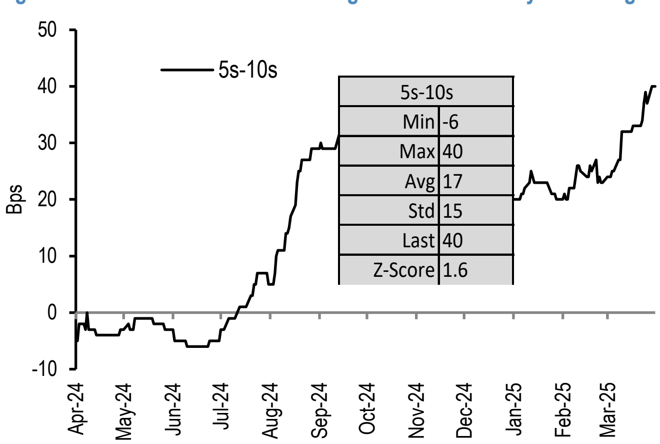
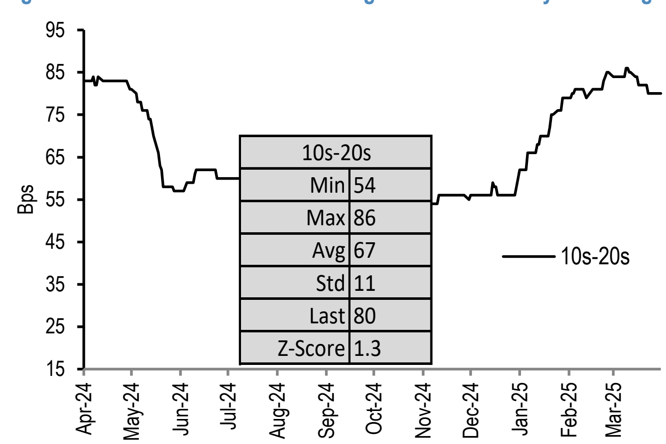


Figure 205: The 10s/20s curve is 1.3 sigma above its one year average



Source: Refinitiv Lipper, Bloomberg Finance L.P., J.P. Morgan. Note: As of 4/3/25

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Total return by state and sector

Figure 206: The average YTD total return for Bloomberg municipal bond indices by state is 0.94%

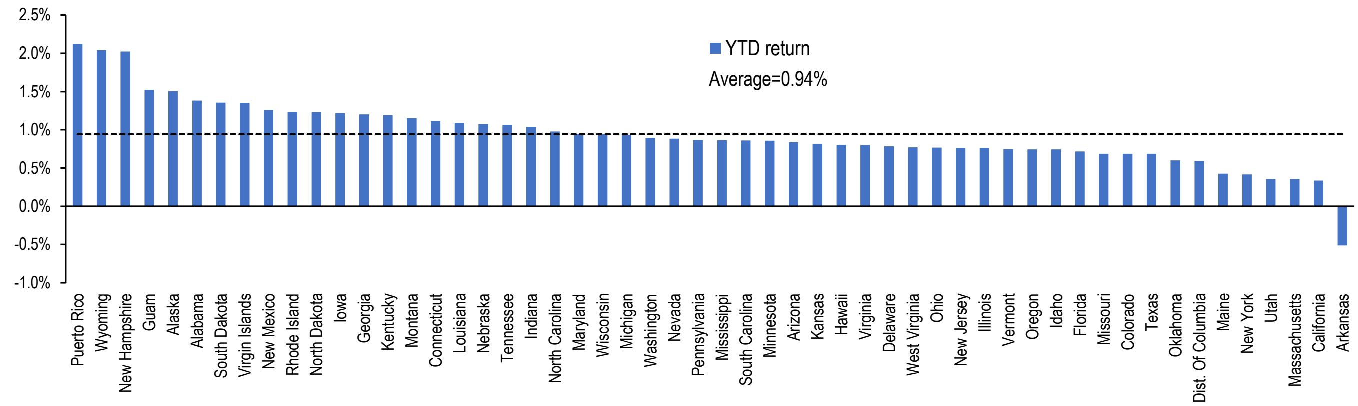


Figure 207: Year-to-date, the broader municipal market has returned 0.68%

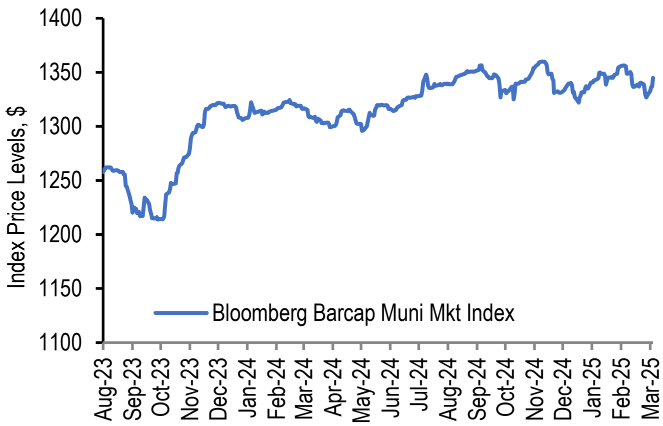


Figure 208: In the last three months, the Bloomberg muni index has returned 0.39%

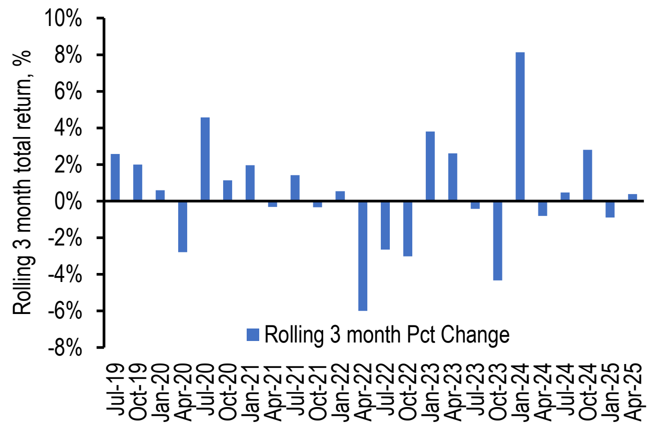


Figure 209: On a YTD basis, HY muni index is outperforming

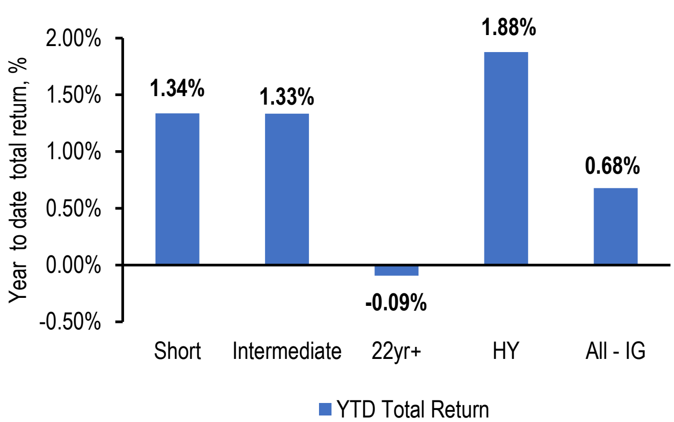
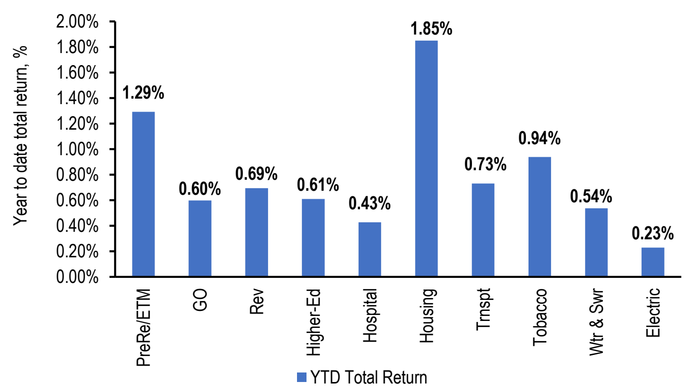


Figure 210: YTD returns by sector



Source: Bloomberg Finance L.P., J.P. Morgan, as of 4/3/25. Note: Total return calculated as the percentage change in index levels. Bloomberg Municipal bond total return indices used

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Glossary of Publication Topics

Sector Overviews

- Airports: 04/13/2018, 04/20/2018, 09/06/2019, 05/15/2020,06/11/2021, 01/10/2022, 02/11/2022, 08/19/2022, 07/28/2023
- Bond Insurance: 03/18/2016, 6/23/2017, 10/27/2017
- Charter Schools: 01/25/13, 03/15/24, 03/22/24
- Double-Barreled Bonds: 05/13/2016, 6/24/2016, 05/13/2022
- Energy: 01/29/2016, 02/05/2016, 02/19/2016, 04/23/2021, 02/11/2022
- Environmental, Social, Governance (ESG) Bonds:06/01/2018, 10/22/2021
- Gas prepay: 3/10/2017, 06/07/2019, 3/10/2023, 3/24/2023
- Housing: 1/20/2017, 10/20/2017, 07/26/2019, 08/02/2019, 12/10/2021,5/3/2024
- Healthcare: 04/29/2016, 1/27/2017, 3/03/2017, 1/19/2018, 1/28/2019, 2/1/2019, 01/24/2020, 10/16/2020, 01/22/2021, 08/27/2021, 06/03/2022, 06/10/2022, 9/23/2022, 4/28/2023, 01/19/2024
- Higher Ed: 5/19/2017, 9/14/2018, 07/24/2020, 07/16/2021, 08/05/2022, 04/05/24
- High/Enhanced Yield: 9/8/2017, 9/15/2017, 7/27/2018, 8/03/2018, 05/08/2020, 05/15/2020, 06/05/2020, 06/12/2020, 08/28/2020
- Local Government Credit: 4/07/2017, 11/10/2017, 06/18/2021, 10/29/2021, 11/04/2022
- Low beta/defensive: 08/25/2017
- Office: 04/14/2023, 05/12/2023, 07/07/23, 03/11/24
- Pensions: 11/03/2017, 10/12/2018, 10/19/2018, 10/26/2018, 04/05/2019, 04/17/2019, 08/16/2019, 08/23/2019, 10/18/2019, 07/30/2021, 11/05/2021, 10/28/2022, 09/29/23
- Pre-refunded bonds: 1/29/2018
- Primary and secondary (K-12) education: 11/02/2018
- Public Power/Electric: 2/09/2018, 02/19/2021, 07/09/2021, 03/18/2022
- U.S. Ports: 04/15/2016, 05/20/2016, 11/18/2016, 04/06/2018, 10/15/2021
- Secured Credits: 08/07/2015, 09/18/2015, 09/25/2015
- Special Tax Bonds: 05/01/2015, 07/31/2015, 09/25/2015, 01/29/2016, 5/5/2017, 09/29/2017, 5/18/2018, 04/26/2019, 05/03/2019, 01/31/2020, 05/20/2022
- States: 11/13/2020, 2/5/2021, 09/24/2021, 02/25/2022, 03/04/2022, 07/08/2022
- SIFMA/Floating Rate notes: 03/15/2016, 08/26/2016, 3/31/2017, 4/28/2017, 04/13/2018, 9/14/2018, 02/20/2019, 04/26/2019
- Taxable bonds: 5/11/2018, 12/14/2018, 03/29/2019, 05/31/2019, 09/27/2019, 04/03/2020, 07/10/2020, 07/24/2020, 08/14/2020, 08/21/2020, 10/16/2020, 10/23/2020, 08/06/2021, 10/22/2021, 11/12/2021, 04/08/2022, 06/03/2022, 07/29/2022, 08/05/2022
- Toll Roads: 9/16/2016, 5/12/2017, 09/15/2017, 07/10/2020, 07/15/2022
- Tobacco: 11/20/2015, 12/15/2017, 7/27/2018, 03/29/2019, 05/07/2021, 08/19/2022, 08/26/2022, 5/10/24, 5/17/24
- Water & Sewer: 05/06/2016, 6/24/2016, 02/02/2018, 12/17/2021, 7/14/23, 5/31/24

Specific Credits

- Assured Guaranty: 03/18/2016, 6/23/2017, 10/27/2017
- National Public Finance Guarantee Corporation: 6/23/2017, 10/27/2017
- Chicago & related credits: 9/23/2016, 2/10/2017, 04/13/2018, 10/25/2019, 02/07/2020, 06/12/2020, 10/23/2020, 02/19/2021, 10/01/2021, 05/13/2022, 10/14/22
- Detroit: 05/14/2021
- Dallas/Fort Worth & related credits: 6/02/2017, 08/04/2017, 04/13/2018
- Houston & related credits: 02/19/2016, 6/02/2017, 08/04/2017, 09/01/2017
- New York City & related credits: 03/31/2015, 6/17/2016, 9/9/2016, 8/17/2018, 08/23/2019, 06/12/2020, 05/21/2021, 04/08/2022, 04/22/2022, 05/20/2022, 01/20/2023
- Puerto Rico: 3/17/2017, 5/5/2017, 5/12/2017, 6/02/2017, 09/22/2017, 5/04/2018, 9/7/2018, 02/22/2019, 04/26/2019, 05/10/2019, 05/17/2019, 02/21/2020, 03/05/2021, 04/30/2021, 01/28/2022, 02/04/2022, 03/11/2022, 03/18/2022, 03/31/2023, 07/28/2023
- Santee Cooper / MEAG / Westinghouse Bankruptcy: 3/17/2017, 3/24/2017, 3/31/2017, 9/21/2018, 9/28/2018
- State of Alaska: 07/28/2017, 06/15/2018
- State of California & locals: 03/02/2018, 03/09/2018, 06/08/2018, 02/05/2021, 04/29/2022, 05/06/2022, 01/27/2023
- State of Connecticut & locals: 8/18/2017, 5/18/2018, 10/4/2019, 05/01/2020

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- State of Illinois & related credits: 9/29/2017, 7/13/2018, 1/11/2019, 03/01/2019, 05/31/2019, 07/26/2019, 02/28/2020, 05/01/2020, 02/19/2021, 05/20/2022
- State of New York: 5/16/2014, 09/29/2017, 2/8/2019, 02/10/2023
- State of New Jersey & locals: 6/17/2016, 8/05/2016, 3/24/2017, 3/31/2017, 4/27/2018, 5/04/2018, 03/15/2019, 05/01/2020, 05/21/2021, 06/04/2021
- State of Pennsylvania: 7/15/2016
- State of Texas & locals: 08/04/2017, 08/16/2019, 03/12/2021, 03/19/2021, 02/03/2023
- State of Wisconsin & locals: 03/15/2015, 9/30/2016
- U.S. Virgin Islands & Guam: 07/15/2016, 07/29/2016, 2/24/2017

Defaults/Distressed Munis

- Chapter 9/Distressed locals: 10/31/2014, 11/21/2014, 06/30/2015, 07/08/2016, 04/26/2019, 01/31/2020, 02/07/2020
- Defaults: 11/20/2015, 06/24/2016, 07/08/2016, 08/26/2016, 8/24/2018, 04/23/2020, 07/24/2020, 09/24/2021, 02/11/2022, 03/11/2022, 07/29/2022, 01/6/2023, 01/05/24
- GO Security/Statutory Lien: 10/2/2015, 11/4/2016

Tax Policy

- AMT: 03/16/2018, 5/18/2018, 10/19/2018, 06/14/2019, 04/01/2022, 05/20/2022, 12/9/2022, 07/28/2023, 02/02/2024
- De minimis: 03/02/2018, 06/14/2019, 03/25/2022, 05/06/2022, 05/13/2022
- State and local tax (SALT) deduction cap: 1/26/2018, 7/6/2018,4/16/2021, 10/22/2021, 02/09/24
- Tax swapping: 1/24/2014, 10/28/2016, 2/09/2018, 10/12/2018, 11/15/2019
- Tax reform: 2/28/2014, 12/16/2016, 4/28/2017, 5/05/2017, 6/16/2017, 09/29/2017, 10/272017, 11/03/2017, 11/10/2017, 1/26/2018

Other Federal Public Policy

- BABs: 02/23/24, 03/01/24,06/21/24
- COVID-19: 03/06/2020, 03/13/2020, 03/20/2020, 03/27/2020, 04/03/2020, 04/17/2020, 06/26/2020, 07/31/2020, 01/08/2021, 02/26/2021, 09/17/2021
- CARES Act: 04/03/2020, 01/21/2022
- American Rescue Plan: 03/26/2021, 04/09/2021, 05/21/2021, 01/21/2022
- Inflation Reduction Act: 08/05/2022, 08/19/2022, 08/26/2022
- Infrastructure spending: 04/09/2021, 05/14/2021, 07/16/2021, 08/06/2021, 09/17/2021, 01/21/2022
- Fed facilities/Municipal Liquidity Facility: 8/11/2020
- Regulatory reform/High-Quality Liquid Assets: 04/01/2016, 07/14/2017, 03/09/2018, 8/24/2018
- Health-care reform/Medicaid funding: 3/10/2017, 3/17/2017, 3/24/2017, 6/23/2017, 07/28/2017, 11/22/2017
- Trade war and tariffs: 04/06/2018, 06/07/2019

Periodic Updates

- 2024 election: 6/7/24
- Coupon performance: 04/08/2016, 9/21/2018, 03/15/2019, 06/14/2019, 06/28/2019, 10/18/2019, 08/20/2021, 04/01/2022, 08/26/2022, 09/09/2022
- Federal Reserve Flow of Funds: 01/10/2020, 03/27/2020, 06/26/2020, 09/25/2020, 12/11/2020, 06/18/2021, 09/24/2021, 12/17/2021, 03/18/2022, 06/10/2022, 09/16/2022, 12/16/2022 , 12/15/2023, 03/15/24
- Make-Whole Call: 04/22/2016, 07/12/2019
- Outflow cycle: 10/29/2021, 11/05/2021, 03/11/2022, 04/01/2022, 04/29/2022, 05/06/2022, 05/13/2022, 09/16/2022
- Short call bonds: 08/28/2015, 12/11/2015, 03/04/2016, 3/3/2017, 3/10/2017, 08/04/2017, 03/26/2021, 10/01/2021, 06/10/2022
- Taxable advance refunding: 09/13/2019, 10/25/2019, 10/16/2020, 10/01/2021
- Total Return & Performance: 05/13/2016, 06/10/2016, 5/19/2017, 07/07/2017, 11/10/2017, 02/23/2018, 1/4/2019, 01/10/2022, 04/08/2022
- Sovereign Government Relative Value: 09/09/2016, 01/19/2018, 8/17/2018
- State and Local revenues: 04/13/2018, 9/21/2018, 1/11/2019, 05/17/2019, 06/21/2019, 09/20/2019, 01/10/2020, 04/17/2020, 09/11/2020, 09/18/2020, 11/13/2020, 01/29/2921, 06/18/2021, 11/12/2021, 03/25/2022, 09/09/2022, 11/10/22, 2/24/2023, 02/23/24,06/12/24

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- Appropriation debt: 8/19/2016, 01/26/2024

Municipal Market Outlook

- 2H24 Outlook
- 2024 Outlook

Weekly Updates

- Economic and policy updates
- Next week's supply, fund flows
- Comparisons versus Corporates, Treasuries, and Global Sovereigns
- Full year gross, net-supply estimates, and interest rate forecast

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Emerging Markets

- In EM fixed income, we are MW GBI-EM local rates, and are UW CEMBI and EMBIGD.
- EM bond flows were -$140mn (-0.04% of weekly AUM, ↓ from -$72mn)

EM credit spreads widened significantly on the back of President Trump's tariff announcements. EMBIGD at 36bp widened by 31bp and CEMBI widened by 27bp (239). At 6.19%, GBI-EM yields are tighter by 20bp. In terms of flows, outflows from EM bond funds re-accelerated this week.Overall retail outflows modestly accelerated to -$140mn this week (from -$72mn). Hard currency fund outflows considerably accelerated to -$508mn this week (from +$381mn), and local currency fund inflows materially accelerated to +$368mn (from -$453mn). ETF outflows sharply increased to -$596mn (from +$164mn) and non-ETF inflows strongly rose to +$456mn (from -$235mn). Within local currency, EM ex-China saw outflows of -$415mn (from -$198mn), and China-focused funds saw inflows of +$783mn (from -$255mn). Within hard currency, AsiaXJ funds saw outflows of -$343mn (from +$49mn), while "broad" EM funds saw outflows of -$165mn (from +$332mn).

EM Quick Take: Tariff Turmoil for EM Fixed Income

The recent tariff announcements by the Trump administration have exceeded expectations in their severity, posing significant new challenges for emerging market (EM) risk assets. We maintain our underweight (UW) stance on EM sovereign and corporate credit, while adjusting our positions in EM rates to MW (from UW). This pivotal moment in US tariff policy marks a crucial turning point for the near-term outlook for EM asset classes, reinforcing our negative stance on EM credit markets due to insufficient risk premia. The first-order impacts of how individual countries will be affected will need to be overlaid with what we see as a negative risk environment and ongoing discussion of downside growth risks that we felt EM assets are not sufficiently pricing.The local markets impact is more debatable, but we move MW rates into what looks like a more pronounced risk-off market environment, with ongoing discussion of recession risks alongside higher US inflation.

Game-changing tariffs are far larger than our original expectations. The reciprocal tariffs announced by President Trump today are significantly higher than the realistic worst-case scenario we had been envisaging (see here and here). There was no new information on sector tariffs – which was expected, as auto tariffs were already announced last week, and it had been indicated that pharmaceutical and semiconductor tariffs would come later. The salient details are as follows (more details here and here):

- The US weighted average tariff on imports increases to around 20%-25% (approximate based on some simplifying assumptions).
- There is a minimum baseline tariff of 10% on all trade partners, invoking IEEPA, effective 5 April.
- Significantly higher reciprocal tariffs have been imposed on other trade partners
- The reciprocal tariffs will not be additive to sectoral tariffs. Hence, they do not apply to steel, aluminum, and autos/auto parts already subject to Section 232 tariffs, or to copper, pharmaceuticals, lumber and other sectors that may be subject to future Section 232 tariffs.

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- No change to the current trade actions on Canada and Mexico, with non-USMCA compliant goods still subject to 25% tariff.

Asia and EU face the brunt of reciprocal tariffs, while Latin America and EM frontier markets get off relatively lightly. The difference can be attributed, implicitly, to non-tariff barriers and currency manipulation. It is difficult to decipher or reverse-engineer the implicit non-tariff barrier, which ranges from 80%+ for the likes of China, to negative values (-20% in the case of Brazil). The opacity of the approach employed likely will pose a barrier to any de-escalation and negotiations. Nonetheless, we note that the major impact is on EM Asia (China, Vietnam, Thailand, Indonesia). Meanwhile, Latin American countries (Brazil, Colombia, Chile, Peru all at 10%) and EM frontiers (e.g. Egypt or Nigeria) have lower announced tariffs, closer to the baseline 10% figure.

The big picture here is that global recession risks have clearly increased, and the tariff schedule announced is a significant escalation in the trade war; if sustained, it threatens to damage global trade unlike anything seen in recent decades. The first-order impact of tariffs is akin to a negative supply shock for the US, driving inflation higher and a negative real income squeeze for consumers. For trade partners, it is akin to a negative external demand shock, driving weaker exports and putting downward pressure on domestic inflation in the tradables sector. Our economists were already penciling in a 40% probability of a recession (see here), and these risks should grow. These forces point in the direction of higher EM credit spreads and weaker currencies. The likely impact on EM rates is ambiguous, as the ability of EM central banks to deliver counter-cyclical policy in this environment will be determined on a case-by-case basis.

Arguably, the bigger impact should come from second-round effects via retaliation, market sentiment, and capital flows, while lower growth could exacerbate fiscal concerns. While there remains scope for negotiations for some de-escalation, we should not underestimate the potential damage to investor confidence from continuous announcements and ad-hoc negotiations. Future trade agreements, even if achieved, are likely to remain clouded by doubt and this should adversely impact capital flows into EM. Retaliatory measures by EU, China or other EM countries would only exacerbate global growth pressures. At a time of growing market concerns over the health of public finances in EM, slowing growth could fuel these concerns. Some de-escalation/lowering of tariffs could be a mitigating factor in coming days and weeks, but we think the opaque manner in which the tariffs have been calibrated is an obstacle. The damage from these announcements is therefore likely to be long-lasting.

Local rates impact is more ambiguous, shift to a MW stance (from UW). We were bearish on EM rates with an UW stance on the view that EM rate-cutting cycles were coming to an end, with select markets hiking; inflation risks were to the upside; and that the market was already pricing in over two Fed rate cuts. However, the impact on local rates going forward in the midst of a growth and sentiment shock is ambiguous. Rising credit risk premia and FX depreciation, as well as an on-hold Fed, pose upside pressure against the negative growth shocks. EM Asia has scope to cut rates, as well as markets that are already undergoing a sharp growth slowdown such as Mexico. But the 'mid-yielders' that we were paying rates in could rally on account of more acute downside risks to growth. We therefore move to MW in GBI-EM GD local bonds, and move to MW in Peru and CEE (previously UW in both).

In Latam, we are closing our UW Peru Soberanos, which leaves us OW rates (OW Mexico, OW Colombia, OW DomRep). Our view was underpinned on unappealing valuations after significant outperformance in EM, risks of an eighth pension withdrawal and heavier foreign positioning following strong inflows in 2H last year. As the dust settles, being a low yielder, we think Soberanos are likely to trade in line with US Treasuries. Moreover, with Peru's inflationary dynamics in order, we believe BCRP would not hesitate to bring rates lower in response to a negative growth shock. At first glance, Peru's relatively low tariff rate of 10%, coupled with the fact that exports to the US represent just 3% of GDP, somewhat limits direct negative exposure. However, indirect channels might prove significant, given that exports to China constitute 10% of GDP and there is material exposure to commodities, with copper exports of 8% of GDP.

In EMEA EM rates, we square our UW CEE rates stance to MW by moving OW CZGBs (from MW) against our existing UW POLGBs. While we have been of the view that the medium-term outlook for CEE rates is turning more bearish (see here), the 20% reciprocal tariff on the EU is larger than we anticipated and presents a sharp near-growth risk for CEE economies, where odds of counter-cyclical monetary policy have increased. Accordingly, we think it is best to turn MW CEE rates for now and reassess in the coming days and weeks.

EM sovereigns: We moved UW EM sovereign credit on March 6, on concerns that US policy uncertainty was now more clearly raising US recession risks, and risking a larger correction to what have been historically tight levels of USD credit spreads. While ongoing room to run in distressed stories had kept us MW the EMBIGD, with a spread compression bias heading into 2025, we now see rising risk of a more beta driven classic decompression move. EMBIGD spreads have risen about 25bp since early March to close to 350bp, but in our view recession risks around 40% (our economists' call prior to the April 2 tariff announcements) had justified a spread target of 400bp. Note that our latest EM Sovereign Fair Value credit model (details here) points to spreads at 412bp, a level that would presumably move higher in an overall greater risk-off environment.

EM Corporates: We remain UW EM corporates as credit spreads are likely to widen on overall risk aversion and market volatility from tariffs. CEMBI BD spread at 226bp remains towards the tight end of the historical range and almost 100bp inside the average since 2010. While our end-2025 CEMBI spread target has been kept at 230bp, we have been of the view that spreads could overshoot towards 300bp if recession risks become more prominent and we look to be headed in that direction (link). We believe the specter of continued tariff developments and potential tit-for-tat retaliation will, above all else, dampen risk and business sentiment, which we think warrants a higher HY vs IG premium, and we downgrade CEMBI HY to UW. Our most recent CEMBI Segment recommendation changes have been characterized by reductions and we continue to re-iterate our UW calls in metals & mining (M&M) broadly with Africa and Brazil IG M&M on UW as well.

For further detail, see *EM Quick Take: Tariff Turmoil for EM Fixed Income*, S. Siddiqui et al, April 2, 2025

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Forecast & Analytics

Interest rate forecast

	Actual 4-Apr	1m ahead 4-May	2Q25 30-Jun	3Q25 30-Sep	4Q25 31-Dec	1Q26 31-Mar
Rates (%)						
Effective funds rate	4.33	4.33	4.10	3.60	3.10	2.85
SOFR	4.39	4.39	4.10	3.60	3.10	2.85
2-yr Treasury	3.67	3.60	3.50	3.05	2.70	2.70
3-yr Treasury	3.64	3.60	3.50	3.25	3.05	3.05
5-yr Treasury	3.71	3.70	3.65	3.30	3.05	3.05
7-yr Treasury	3.83	3.80	3.80	3.45	3.20	3.20
10-yr Treasury	3.99	4.00	3.95	3.75	3.65	3.65
20-yr Treasury	4.42	4.40	4.40	4.20	4.10	4.10
30-yr Treasury	4.39	4.40	4.35	4.20	4.15	4.15
Spreads (bp)						
Fed funds/2yr	-66	-73	-60	-55	-40	-15
2s/10s	32	40	45	70	95	95
2s/5s	4	10	15	25	35	35
5s/10s	28	30	30	45	60	60
5s/30s	68	70	70	90	110	110
10s/30s	40	40	40	45	50	50

Source: J.P. Morgan

Swap spread forecast*

SOFR Swap Spread (bp)	Actual 4-Apr-25	1H25 30-Jun-25
2-year SOFR swap spread (bp)	-21	-16
5-year SOFR swap spread (bp)	-34	-33
10-year SOFR swap spread (bp)	-49	-47
30-year SOFR swap spread (bp)	-83	-82

* Forecast uses matched-maturity spreads
Source: J.P. Morgan

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TIPS real yield & breakeven forecast

	Actual 4-Apr-25	2Q25 30-Jun-25	3Q25 30-Sep-25	4Q25 31-Dec-25	1Q26 31-Mar-26
Breakevens (bp)					
5Y	239	225	215	210	215
10Y	218	215	210	215	220
30Y	212	215	210	215	220
Real yields (%)					
5Y	1.31	1.40	1.15	0.95	0.90
10Y	1.81	1.80	1.65	1.50	1.45
30Y	2.27	2.20	2.10	2.00	1.95
Curves (bp)					
5s/10s BE	-22	-10	-5	5	5
10s/30s BE	-5	0	0	0	0
5s/10s yld	50	40	50	55	55
10s/30s yld	46	40	45	50	50

Source: J.P. Morgan

Economic forecast

%ch q/q, saar, unless otherwise noted

	24Q2	24Q3	24Q4	25Q1	25Q2	25Q3	25Q4	2023*	2024*	2025*
Gross Domestic Product										
Real GDP	3.0	3.1	2.5	0.0	0.5	-1.0	-0.5	3.2	2.5	-0.3
Final Sales	1.9	3.3	3.3	-1.3	2.0	-0.4	0.1	3.6	2.7	0.1
Domestic Final Sales	2.8	3.7	3.0	1.3	0.4	-0.7	0.0	3.5	3.0	0.3
Business Investment	3.9	4.0	-2.9	4.8	-0.3	-4.2	-1.9	5.0	2.3	-0.4
Net Trade (% contribution to GDP)	-0.9	-0.4	0.3	-2.6	1.5	0.3	0.1	0.1	-0.3	-0.2
Inventories (% contribution to GDP)	1.1	-0.2	-0.8	1.3	-1.4	-0.6	-0.6	-0.4	-0.2	-0.3
Prices and Labor Cost										
Consumer Price Index	2.8	1.4	3.0	4.0	5.7	5.2	2.4	3.2	2.7	4.3
Core	3.1	2.4	3.4	3.7	7.5	6.4	2.5	4.0	3.3	5.0
Employment Cost Index	3.7	3.2	3.6	3.5	3.2	2.5	2.5	4.2	3.8	2.9
Unemployment Rate (%, sa)	4.0	4.2	4.1	4.1	4.2	4.5	4.8	-	-	-

* Q4/Q4 change

Source: J.P. Morgan

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Financial markets forecast

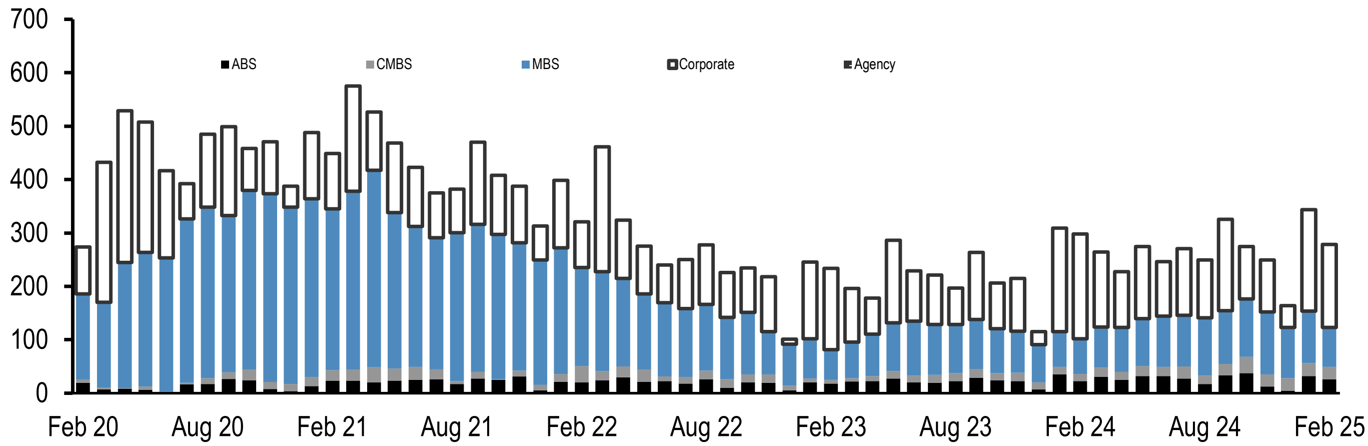
Credit Spread	Current	YE25
10-year SOFR swap spread (bp) *	-49	-47
FNMA 30yr 6% Front Tsy OAS (bp) *	26	25
10yr conduit CMBS LCF AAA	J+102	J+75
3-year AAA card ABS to Treasuries (bp) *	41	25
JULI spread to Treasuries (bp)	125	125
High Yield Index	#N/A	550
Emerging Market Index	366	400
Local currency: GBI-EM yield (%)	6.19%	5.58%

* Indicates 1H25 forecast
Source: J.P. Morgan

cont.

	Current	YE25
S&P 500 (level)	5074	6500
Brent ($/bbl)	66	69
Gold ($/oz)	3038	2950
EUR/USD	1.10	1.08
USD/JPY	147	148.0

Gross fixed-rate product supply*



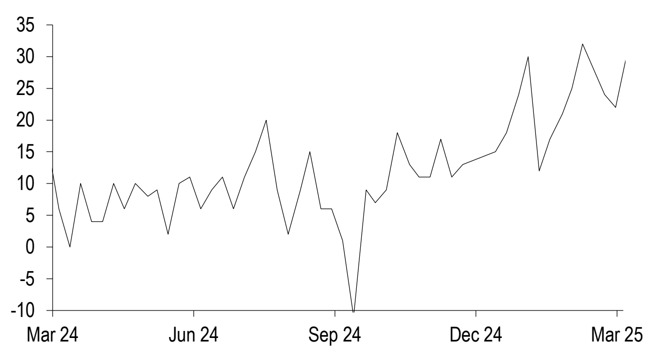
Source: J.P. Morgan

Treasury client survey

All Clients

	Long	Neutral	Short	Changes	Net longs
Mar 31, 2025	**37**	**56**	**7**	**20**	**30**
Mar 24, 2025	31	60	9	11	22
Mar 17, 2025	33	58	9	7	24
4-week avg	34	58	8		
52-week avg	23	67	10		

Output



Page 1

Source: J.P. Morgan

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Treasury net issuance forecast

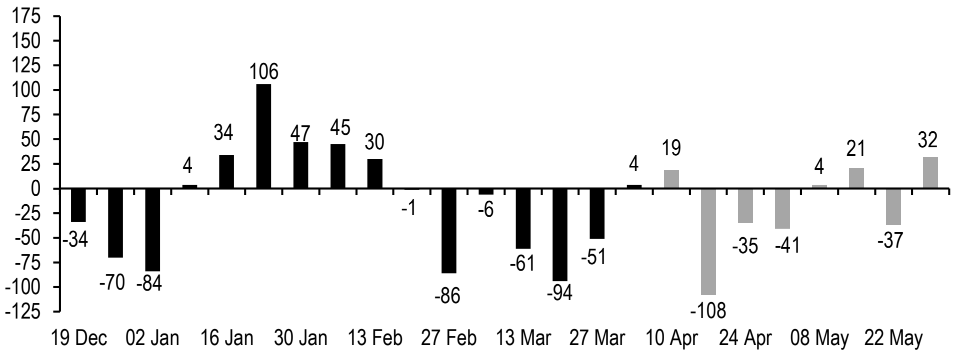
J.P. Morgan projection of net Treasury issuance to private investors, Federal Reserve purchases of Treasuries, and expected change in Treasuries held by private investors; $bn

Year	Net privately-held borrowing		Fed secondary market purchases		Net change in privately-held debt	
	Bills	Coupons	Bills	Coupons	Bills	Coupons
CY 2021	-1,195	2,898	0	957	-1,195	1,942
CY 2022	-37	1,638	0	75	-37	1,563
CY 2023	2,047	1,107	0	0	2,047	1,107
CY 2024	538	1,909	0	0	538	1,909
CY 2025	381	1,891	0	0	381	1,891
CY 2026	252	2,061	261	0	-9	2,061

Source: J.P. Morgan, US Treasury, Federal Reserve Bank of New York

T-bill weekly net issuance

Weekly net issuance of T-bills, historical and JPM projections; $bn



Source: J.P. Morgan

Dealer inventories

Primary dealer positions in Treasuries*, with 5-year statistics; $bn

Maturity	Last	1w chg	5y avg	5y min	5y max	5y z-score
T-bills	94	-6	59	-4	119	1.3
<2y	57	-2	28	-17	73	1.4
2-3y	20	5	6	-14	27	2.0
3-6y	72	6	34	-2	92	1.7
6-7y	36	0	14	-4	36	2.8
7-11y	32	0	7	-10	37	2.1
>11y	48	0	47	35	61	0.2
11-21y	30	3				
>21y	46	-2				
TIPS	21	0	14	1	26	1.2
FRNS	37	9	9	-14	38	3.2
Total	418	11	218	76	455	2.5

Source: Federal Reserve Board of New York
*Latest data as of 3/26/2025

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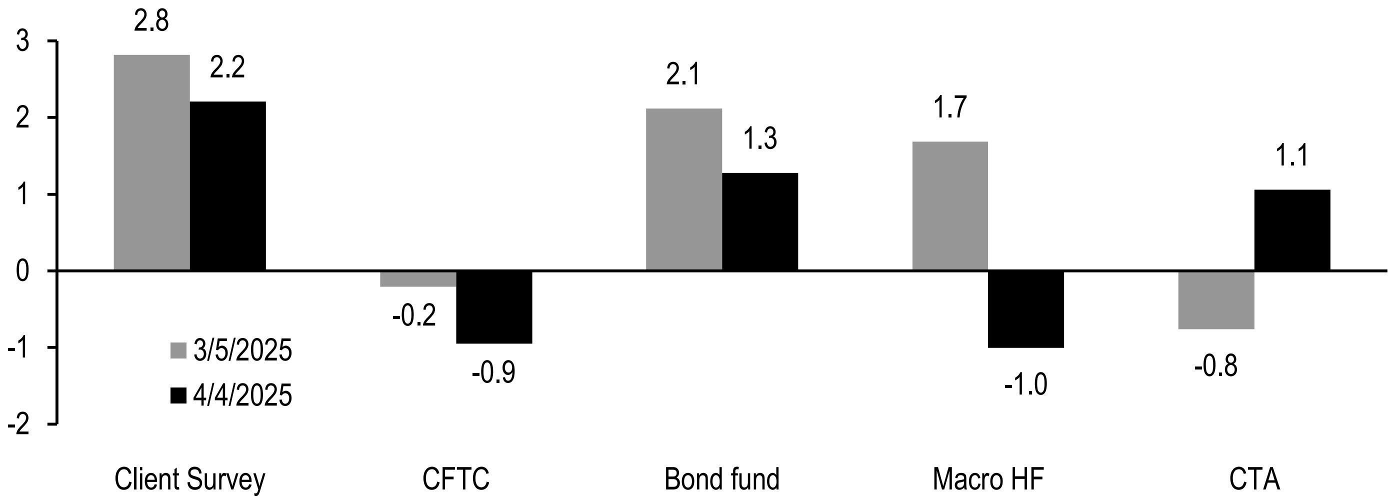
Investor position technical indicators

Current value of various position indicators* versus 1 month ago; 1-year z-score



Source: CFTC, Bloomberg Finance L.P, SG, HFR, J.P. Morgan
* JPM Client Survey refers to a 4-week moving average of our Treasury Client Survey Index; (Longs+Neutrals)/(Shorts+Neutrals), see *Survey Says: Using the Treasury Client Survey to predict rates moves*, 7/21/23for more details. CFTC refers to the non-commercial net longs in UST and SOFR futures contracts reported by the CFTC. CTA beta is the four-week partial beta of SG CTA Index to 10-year UST yields. Real money beta is the eight-week partial beta of excess returns of the 20 largest actively managed US core bond funds to 10-year UST yields. Macro HF beta is the six-week partial beta of HFRX Macro/CTA Index to 10-year UST yields

Treasury market functioning metrics

Various metrics of Treasury market functioning; units as indicated

Indicator	Today	1w chg	1y avg	1y min	1y max	1y z-score
Duration weighted mkt depth*; $mn	130	-109.6	244	94	346	-2.5
10y price impact**; 32nds	0.7	-0.2	0.7	0.3	1.2	-0.1
1m GC/OIS; bp	7.0	0.7	11	2.5	32.2	-0.7
UST curve RMSE***; bp	1.0	0.0	1.2	0.0	1.7	-1.1
10s/3x old 10s ASW; bp	-0.1	0.1	0.0	-1.0	1.3	-0.3
30s/3x old 30s ASW; bp	-1.4	-0.3	0.1	-1.4	1.8	-2.0

Source: J.P. Morgan, BrokerTec
* Market depth is the sum of the three bids and offers by queue position, averaged between 8:30 and 10:30am daily
** Price impact defined as the average move in order book mid-price against a $100mn flow in traded notional. See *Drivers of price impact and the role of hidden liquidity*, J. Younger et al., 1/13/17 for more details.
*** Root Mean Square Error of J.P. Morgan par fitted Treasury curve (see The (par) curves they are a-changin', 7/23/24)

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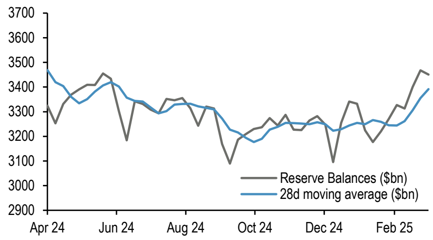
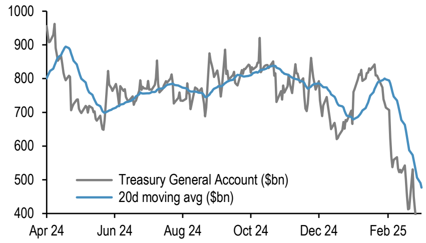
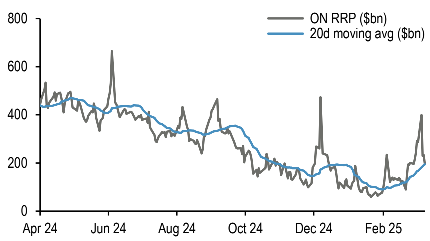
Select Federal Reserve balance sheet items







Select FRB Balance Sheet Items ($bn)	4/2/25	3/26/25	3/5/25	4/3/24	1wk Δ	1m Δ	1y Δ	1y avg	1y min	1y max	Percentile	Status**
Assets												
SOMA Holdings	6301	6320	6340	6852	-19	-39	-552	6551	6301	6852	0%	Narrow
T-bills	195	195	195	195	0	0	0	195	195	195	70%	Normal
Treasury Notes and Bonds	3582	3601	3607	3898	-19	-26	-316	3718	3582	3898	37%	Normal
Treasury FRNs	11	11	11	8	0	0	3	7	5	11	92%	Wide
TIPS	321	321	321	361	1	1	-39	340	319	361	21%	Narrow
Federal Agency Debt	2	2	2	2	0	0	0	2	2	2	0%	Narrow
Agency MBS	2181	2181	2195	2380	0	-14	-199	2281	2181	2380	0%	Narrow
Agency CMBS	8	8	8	8	0	0	0	8	8	8	0%	Narrow
Total Assets	6723	6740	6757	7440	-17	-33	-716	7056	6723	7440	0%	Narrow
Discount Window Borrowings	2	2	3	5	0	-1	-3	4	1	9	28%	Narrow
Liabilities												
Reserves	3379	3451	3313	3414	-72	67	-35	3308	3090	3587	77%	Wide
Treasury General Account	302	350	533	760	-49	-231	-458	740	281	962	1%	Narrow
Overnight RRP*	196	215	139	437	-19	57	-240	290	59	665	31%	Normal
Foreign RRP	389	387	391	365	2	-3	24	389	353	420	47%	Normal
Other Deposits	205	183	165	155	22	40	50	159	145	205	100%	Wide

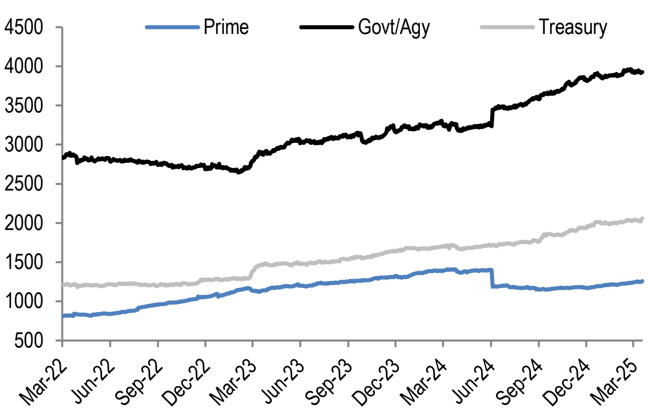
Source: Federal Reserve Bank, Bloomberg Finance L.P., J.P.Morgan

* Overnight RRP as of 04/03/25

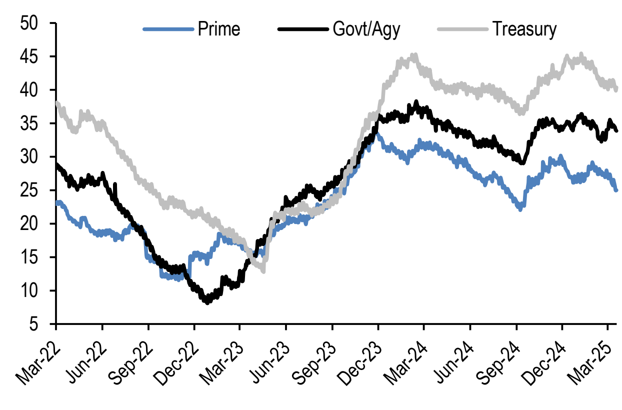
** Status: "Normal" means the current value is within 30-70% percentile over the past year. "Narrow" means the current value is within 10-30% percentile over the past year. "Wide" means the current value is within 70-90% percentile over the past year. A orange highlighted "Narrow" means the current value is less than 10% percentile over the past year. A orange highlighted "Wide" means the current value is greater than 90% percentile over the past year.

Money market funds

Assets under management ($bn)



Weighted average maturity (days)



Source: Crane Data, J.P. Morgan

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US funds flows

US Fund Flows ($mn)	Monthly					Weekly				
	Feb	Jan	Dec	Nov	Oct	4/2/2025	3/26/2025	3/19/2025	3/12/2025	3/5/2025
UST	10,931	10,598	(1,203)	(2,018)	6,180	1,765	554	1,818	6,076	(1,602)
Mutual	2,543	102	310	(563)	(2,633)	(155)	(16)	796	(59)	(156)
ETF	8,388	10,496	(1,512)	(1,455)	8,813	1,920	570	1,022	6,135	(1,446)
IG	30,628	20,000	15,205	21,491	43,132	2,282	170	1,353	(1,451)	1,971
Mutual	11,636	5,472	8,306	8,897	24,409	1,090	106	235	(451)	659
ETF	18,992	14,528	6,900	12,594	18,723	1,292	496	1,545	(91)	1,801
HY	5,719	3,740	(4,992)	3,277	1,796	70	255	1,435	(1,293)	1,993
Mutual	2,307	2,167	(2,287)	(296)	1,375	591	(840)	(464)	(507)	438
ETF	3,412	1,573	(2,705)	3,573	421	(522)	1,095	1,899	(786)	1,555
LL	6,456	11,419	3,977	7,146	3,411	(550)	(278)	(833)	(1,020)	168
Mutual	2,702	3,923	1,552	1,196	290	(242)	48	1	414	562
ETF	3,753	7,497	2,425	5,951	3,122	(308)	(326)	(834)	(1,434)	(394)
Municipal	5,890	6,170	(2,491)	4,882	8,076	(440)	(401)	314	(605)	(202)
Mutual	2,285	3,988	(2,455)	1,560	4,821	(1,162)	108	(273)	206	(7)
ETF	3,605	2,181	(37)	3,322	3,255	722	(509)	587	(811)	(196)
Inflation Protected	2,169	361	388	116	7,251	288	611	459	813	472
Mutual	183	(518)	701	628	7,466	(46)	(55)	11	59	30
ETF	1,986	879	(313)	(512)	(215)	335	665	448	754	442
MBS	2,032	3,427	2,616	4,157	2,865	(241)	590	(1,029)	457	(57)
Mutual	893	1,557	580	914	1,208	(240)	(74)	(247)	(17)	(43)
ETF	1,138	1,871	2,036	3,242	1,657	(1)	664	(782)	475	(14)
Agg	19,805	10,332	14,388	13,229	28,378	2,991	1,355	2,644	4,450	4,901
Mutual	8,481	3,364	7,916	4,093	16,378	2,593	(374)	934	816	2,946
ETF	2,345	2,218	1,057	161	3,364	398	1,729	1,709	3,634	1,955
Equities	25,473	43,219	91,281	114,005	11,392	(4,656)	(20,255)	34,080	(2,525)	8,519
Mutual	(28,333)	(15,557)	(26,925)	(40,323)	(60,391)	(1,692)	(2,951)	(6,263)	(9,994)	(2,064)
ETF	53,806	58,776	118,206	154,328	71,782	(2,964)	(17,304)	40,343	7,469	10,583
MMFs	93,314	55,062	111,297	197,062	93,786	11,465	24,425	(17,393)	(1,898)	44,674
Prime	14,044	29,025	2,143	13,425	17,567	2,783	9,981	9,238	1,956	5,229
Government	79,270	26,037	109,154	183,637	76,219	8,682	14,444	(26,631)	(3,854)	39,445

Source: EPFR, Crane Data, J.P. Morgan

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Market Movers Calendar

Monday	Tuesday	Wednesday	Thursday	Friday
7 Apr **Consumer credit**(3:00pm) Feb Fed Governor Kugler speaks(10:30am)	**8 Apr** **NFIB survey**(6:00am) Mar Auction 3-year note $58bn San Francisco Fed President Daly speaks(2:00pm)	**9 Apr** **Wholesale trade final**(10:00am) Feb Auction 10-year note (r) $39bn Richmond Fed President Barkin speaks(11:00am) **FOMC minutes**	**10 Apr** **CPI**(8:30am) Mar 0.09% Core 0.24% **Initial claims**(8:30am) w/e Apr 5 220,000 **Federal budget**(2:00pm) Mar Auction 30-year bond (r) $22bn Announce 5-year TIPS $25bn Announce 20-year bond (r) $13bn Dallas Fed President Logan speaks(9:30am) Fed Governor Bowman speaks(10:00am) Kansas City Fed President Schmid speaks(10:00am) Chicago Fed President Goolsbee speaks(12:00pm) Philadelphia Fed President Harker speaks(12:00pm)	**11 Apr** **PPI**(8:30am) Mar 0.1% Core 0.2% **Consumer sentiment**(10:00am) Apr prelim 52.0 St. Louis Fed President Musalem speaks(10:00am) New York Fed President Williams speaks(11:00am)
14 Apr Philadelphia Fed President Harker speaks(6:00pm) Atlanta Fed President Bostic speaks(7:40pm)	**15 Apr** **Import prices**(8:30am) Mar **Empire State survey**(8:30am) Apr	**16 Apr** **Retail sales**(8:30am) Mar **Business leaders survey**(8:30am) Apr **Industrial production**(9:15am) Mar **Business inventories**(10:00am) Feb **NAHB survey**(10:00am) Apr **TIC data**(4:00pm) Feb Auction 20-year bond (r) $13bn Cleveland Fed President Hammack speaks(12:00pm) Kansas City Fed President Schmid and Dallas Fed President Logan speak(7:00pm)	**17 Apr** **Housing starts**(8:30am) Mar **Initial claims**(8:30am) w/e Apr 12 **Philadelphia Fed manufacturing**(8:30am) Apr Auction 5-year TIPS $25bn Announce 5-year note $70bn Announce 2-year note $69bn Announce 7-year note $44bn Announce 2-year FRN (r) $30bn	**18 Apr** San Francisco Fed President Daly speaks(11:00am)
21 Apr **Leading indicators**(10:00am) Mar	**22 Apr** **Richmond Fed survey**(10:00am) Apr Auction 2-year note $69bn	**23 Apr** **Manufacturing PMI**(9:45am) Apr flash **Services PMI**(9:45am) Apr flash **New home sales**(10:00am) Mar Auction 2-year FRN (r) $30bn Auction 5-year note $70bn Chicago Fed President Goolsbee speaks(9:00am) Cleveland Fed President Hammack speaks(6:30pm)	**24 Apr** **Initial claims**(8:30am) w/e Apr 19 **Durable goods prelim**(8:30am) Mar **Existing home sales**(10:00am) Mar **KC Fed survey**(11:00am) Apr Auction 7-year note $44bn	**25 Apr** **Consumer sentiment**(10:00am) Apr final
28 Apr **Housing vacancies**(10:00am) 1Q **Dallas Fed manufacturing**(10:30am) Apr	**29 Apr** **Wholesale trade**(8:30am) Feb **FHFA HPI**(9:00am) Feb **S&P/Case-Shiller HPI**(9:00am) Feb **JOLTS**(10:00am) Feb **Consumer confidence**(10:00am) Apr	**30 Apr** **ADP employment**(8:15am) Mar **Employment cost index**(8:30am) 1Q **Real GDP**(8:30am) 1Q advance **Personal income**(10:00am) Mar **Pending home sales**(10:00am) Mar	**1 May** **Initial claims**(8:30am) w/e Apr 26 **Manufacturing PMI**(9:45am) Apr final **Services PMI**(9:45am) Apr final **Construction spending**(10:00am) Mar **ISM manufacturing**(10:00am) Apr **Light vehicle sales** Apr	**2 May** **Employment**(8:30am) Apr **Factory orders**(10:00am) Apr **Durable goods**(10:00am) Apr

Source: Private and public agencies and J.P. Morgan. Further details available upon request.

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J.P. Morgan Emerging Markets Sovereign Research Ratings Distribution, as of January 1, 2025

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***Please note that the percentages may not add to 100% because of rounding.**
****Percentage of subject issuers within each of the "Overweight, "Marketweight" and "Underweight" categories for which J.P. Morgan has provided investment banking services within the previous 12 months.**
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J.P. Morgan Credit Research Ratings Distribution, as of January 01, 2025

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