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North America Fixed Income Strategy

23 February 2024

J.P.Morgan

Interest Rate Derivatives

What's the rush?

- Fed-speak continues to signal patience and a desire to see more data supporting disinflationary trends before beginning to ease policy, even as growth and inflation data remain strong. This is manifesting as rising policy uncertainty. A closer look at the Dec 2024 SOFR futures implied distribution suggests that modal outcomes remain centered around 5 cuts over the remainder of the year, but the relative weight on alternative scenarios have risen. Currently, options markets are consistent with a sizeable weight on a 1-more-hike scenario in addition to the modal scenario of 5 cuts
- Elevated policy uncertainty is supportive of high realized volatility. Small shifts in the relative weights of different policy paths can lead to significant moves in forward yields. Indeed, it is telling that YE24 forward OIS has traded in an 80bp range in recent months, even though the modal scenario has remained the same at 5 cuts. This helps to keep jump risk elevated, and is sufficient to cause us to maintain our bullish bias on gamma, especially at the front end of the curve
- At the same time, implieds on long tails appear rich - we recommend buying 2Yx2Y swaption volatility versus 2Yx30Y (0.5:1 vega weighted) and paying fixed in 10s to offset the modest bullish bias in this trade
- The January FOMC minutes reveal little urgency with respect to tapering QT, and we revise our forecast accordingly. We now look for taper to be announced in June and begin the following month. In addition, negative Tbill issuance in 2Q24 should help make RRP balances stickier in the near term, and we reflect this in our updated forecast for the Fed's balance sheet. We now look for QT to continue all year in 2024
- An extension of QT relative to prior expectations is a negative for swap spreads in the belly - we recommend unwinding widening exposure in the 5Y sector and turning neutral. At the long end of the curve, 30Y swap spreads appear fair but we recommend 20s/30s swap spread curve steepeners
- Stickier RRP balances and falling T-bill issuance are headwinds to spread narrowers at the front end - we recommend unwinding 2Y swap spread narrowing exposure and turning neutral
- Our Treasury strategists' revised forecasts call for rangebound yield curves, which means that carry trades are attractive given the amount of easing and curve steepening priced into forwards. But policy uncertainty also makes the risk-reward in outright curve flatteners unattractive. We discuss three ways to initiate exposure to carry trades …
- … initiate 3M forward 2s/3s swap curve flatteners paired with a small long in M4 3M SOFR futures, …
- … receive fixed in the belly of a 3M forward 2s/7s/20s weighted swap butterfly, also paired with a small long in M4 3M SOFR futures, and/or …
- … initiate conditional exposure to a flatter 1s/5s weighted curve in a selloff using 3M expiry payer swaptions

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What's the rush?

A lot has happened in the two weeks since our last publication. On the one hand, disinflation - and central banks' acknowledgement of it - remains very much a global theme. This is illustrated by the downside surprise in Canadian inflation, for instance, or by Governor Bailey's comments that market-implied easing expectations are "not unreasonable". In the US

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too, disinflation has been acknowledged by the Fed numerous times, although it has also indicated a desire to see more data (not necessarily "better" data) corroborating disinflationary trends. Perhaps no speaker conveyed this message better than Governor Waller did when he said that when it comes to rate cuts the Fed should be patient, careful, methodical, deliberative - words that all translate to "what's the rush", as he eloquently noted (**Figure 1**).

Figure 1: What's the rush? Recent Fed-speak suggests that the Fed will continue to be patient before making a decision on when to start easing

Selected Fed-speak excerpts, 2/13 - 2/23

Date	Fed Speakers	Comments
2/23/2024	Williams, v	Expect consumer spending growth to slow this year, Rethink outlook if inf. progress stalls, Rate hikes are not my base case, Rate cuts likely 'later this year'
2/22/2024	Waller, v	The strength of the economy and the recent data we have received on inflation mean it is appropriate to be patient, careful, deliberative - pick your favorite synonym… Whatever word you pick, they all translate to one idea: What's the rush?
2/22/2024	Harker, nv	Fed should start slowing B/S runoff this year, Close to cutting, just give us a 'couple meetings', Once we start cutting rates, want steady, slow easing, Not going to take a rate cut in May off the table, Looking for a couple more months of economic data, Job market will determine when to cut, Can hold rates here for now
2/22/2024	Jefferson, v	Need 'body of evidence' from economy to support cuts, Balance sheets to be less supportive for consumption, Likely appropriate to cut 'later this year', Jan CPI highlights disinflation likely to be bumpy, More resilient consumer could harm inflation progress, Excessive easing can cause progress to stall, reverse
2/22/2024	Kashkari, nv	We still have some work to do on inflation
2/21/2024	Bowman, v	Time for lower rates is certainly not now, Housing market not influencing rate cut decision, New US capital rule plans would hurt lending, Criticizes basel III
2/21/2024	Barkin, v	Expectations of consumers, firms need to converge to 2%, Expect firms to raise prices until consumers push back, Worry once goods deflation ends
2/16/2024	Daly, v	Patience needed to finish the job on inflation, Sees 3 rate cuts in 2024, CRE not an imminent risk to fin. stability, Firms say consumer price sensitivity is much higher, Don't agree that last leg of inflation will be the hardest, Optimistic productivity pickup will persist, not expecting disruptions around the B/S, No imminent weakening in job market, Economic data consistent with normal volatility, Economic momentum remains a risk for inflation outlook, Price stability within sight
2/16/2024	Bostic, v	Favors starting interest rate cuts in summer, Need to be patient with policy approach, Goal is to get to neutral rates and let economy move on its own, Wants to be careful about pushing B/S cuts too far, If economy performs well, ok with waiting longer to cut, With positive data, could support 3 cuts, expects 2 cuts
2/16/2024	Barkin, v	CPI data confirms why fed needs more confidence to cut, January economic data has been messy, not that good
2/15/2024	Bostic, v	Pay close attention to RRP balances, Monitoring liquidity closely, markets doing fine, Inflation heading down, May take 'some time' to be sure inflation heading to 2%, Risk of new demand burst could reverse progress, Grateful yet vigilant about US inflation progress, No urgency to cut with strong labor market
2/15/2024	Brainard, nv	Expects boost to productivity, Inflation to continue to fall to 2%, Will be bank stress from CRE, no broader impact, Hopeful about improvement in labor supply
2/14/2024	Barr, v	On good path but 'very early' to declare soft landing, Fed B/S unwind 'operating smoothly', No signs of liquidity problems across banking system, CPI data showed path to 2% inflation may be bumpy, Fully support careful approach to policy normalization, Need more good inflation data before rate cuts
2/14/2024	Goolsbee, nv	Inflation can be a bit higher and still be on path to 2%, Sustained productivity trend would change Fed thinking, Housing still biggest piece on inflation puzzle, Don't believe last mile of inflation fight hardest, Fed's current policy stance is 'quite restrictive', Fed's inflation goal based on PCE, not CPI
2/13/2024	Brainard, nv	Shrinkflation' continues to hurt consumers, Do need to see lower prices at the grocery store, Real wages are up, helping to offset inflation gains

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

Of course, **economic data can be noisy and this data dependence can translate into significant policy uncertainty**. As our UST strategists note, growth expectations as well as inflation expectations have been rising (see *Treasuries*). In response, **Fed easing expectations have been moderating, and the future cone of possible policy paths is again widening**. The first of these points is easy to see - for instance, the YE24 forward OIS rate is now above 4.5%, the highest since mid-November. The second point is a bit more nuanced, but we can infer it by looking at the price of options on Z4 SOFR futures at different strikes. As regular readers may recall, we have often turned to a decomposition of the implied probability distribution to infer some notion of the relative weights that the markets are placing on different scenarios. Specifically, we assume that a given scenario will correspond to a Normal distribution with a specific mean (e.g., 4.9% for a scenario corresponding to 2 rate cuts) and some unknown standard deviation. We then assume that the "true" implied probability density function takes the form of a weighted combination of each conditional probability density function, with the weights summing to one. Finally, we solve for the unknown weights and other parameters by finding the best fit to actual observed prices of calls and puts on Z4 SOFR futures across a range of strikes.

We have often performed the above analysis on a snapshot-in-time basis. But in **Figure 2**, we present a time series of such weights, in order to understand how the relative importance of different scenarios has been evolving as well as what it tells us now. (As a technical detail, we have fixed the means of each distribution and the standard deviations of most distributions in order to make the weights comparable over time). From this exhibit, we make several observations. **First**, since mid-December or so, **the scenario with the largest weight (i.e., the modal outcome in some sense) has remained one where the Fed is expected to deliver 5 cuts by year end**, even as OIS forwards themselves have traded in a very wide 80bp range. In other words, moves in the forwards can be thought of as stemming from

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shifting weights associated with alternate scenarios. **Second**, policy uncertainty was relatively small in the second half of January, but has since risen. This is seen in the fact that difference in weights between the largest-weight scenario and the 2nd-largest-weight scenario was 0.8 or more in the second half of January, suggesting that the modal scenario was dominant. In addition, the two scenarios in contention represented 5 cuts and 3 cuts respectively, again a relatively small difference. **Third**, **policy uncertainty is currently the most elevated it has been since at least mid-December**. This is seen in the fact that in recent weeks, the modal scenario has a weight that is only 0.24-0.32 higher than the second contender, and also the fact that the second scenario actually corresponds to a 25bp *hike* by year-end.

Figure 2: Decomposing the SFRZ4 implied distribution into a weighted combination of scenario-specific conditional Normal distributions is helpful in assessing policy uncertainty, by examining the mixing weights corresponding to each scenario

Weights for conditional Normal distributions* that can be combined to create a composite distribution that recovers prices of SFRZ4 calls and puts at various strikes**, scenarios with largest weights, the weight differential between the two scenarios with the largest weights, and 12/31/2024x1M OIS rate (%), as of the dates shown

	Scenario							Scenario with		1st minus 2nd	YE24
Date	1 hike	Unch	1 Cut	2 Cuts	3 Cuts	5 Cuts	9 Cuts	Largest wt	2nd largest wt	Wt. diff	fwd OIS
12/14/23	0.01	0.18	0.03	0.00	0.05	0.74	0.00	5 cuts	Unch	0.56	3.84
12/22/23	0.01	0.19	0.07	0.00	0.01	0.71	0.00	5 Cuts	Unch	0.52	3.76
01/05/24	0.02	0.22	0.08	0.00	0.01	0.67	0.00	5 Cuts	Unch	0.46	3.96
01/12/24	0.01	0.01	0.04	0.00	0.03	0.92	0.00	5 Cuts	1 Cut	0.88	3.64
01/26/24	0.00	0.00	0.05	0.00	0.07	0.87	0.00	5 Cuts	3 Cuts	0.80	4.00
02/01/24	0.00	0.00	0.04	0.00	0.20	0.75	0.00	5 Cuts	3 Cuts	0.55	3.85
02/09/24	0.05	0.17	0.04	0.00	0.18	0.57	0.00	5 Cuts	3 Cuts	0.39	4.21
02/13/24	0.20	0.00	0.14	0.00	0.21	0.44	0.00	5 Cuts	1 hike	0.24	4.44
02/20/24	0.19	0.00	0.17	0.00	0.13	0.51	0.00	5 Cuts	1 hike	0.32	4.42

Source: J.P. Morgan., CME
*1 hike scenario corresponds to mean of 5.5%, unchanged corresponds to a mean of 5.25%, 1 cut corresponds to mean of 5%, 2 cuts corresponds to mean of 4.75%, 3 cuts corresponds to mean of 4.5%, 5 cuts corresponds to mean of 4% and 9 cuts corresponds to mean of 3%
**Implied distribution is assumed to take the form of a weighted sum of many individual Gaussian density functions with various different means and standard deviations. The weights are solved for by calibrating to the prices of 3M SOFR ATM and OTM calls and puts, while also recovering the underlying futures price

This elevated level of policy uncertainty is a key driver behind our bullish view on volatility, particularly at the front end of the curve, which we maintain going forward. Indeed, implieds have risen across most of the surface over the past two weeks with shorter tails outperforming longer tails (**Figure 3**). As we noted above, the modal scenario has remained the same in recent months (5 cuts by year end) even as forward OIS has traded in a 80bp range. This is due to new information leading to a reassessment of the weights associated with different policy paths, and even small shifts in weights can cause large shifts in forward rates. Thus, it is perhaps no surprise that jump frequency and jump magnitudes are elevated. Not only are we seeing a high frequency of jumps (we define a jump as a daily move over 10bp), we are also seeing sizable moves on jump days (**Figure 4**). **Given the current observed frequency of jumps, and the typical size of moves on jump and non-jump days, implieds appear to be cheap in 2- and 5-year tails,** while appearing fair to rich at the long end of the curve. Of course, the key question is whether this level of jump risk will be sustained in coming weeks. On this score, we believe the answer is yes, because **there is little reason to expect material shifts in policy clarity until several more months of data are behind us**.

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Figure 3: Implieds are higher across most of the surface over the two weeks

Selected statistics for various swaption structures, 2/9/2024 - 2/23/2024; bp

	Start	Chg	End	Min	Max
6Mx2Y	7.92	0.20	8.12	7.80	8.13
6Mx5Y	7.40	0.15	7.55	7.30	7.72
6Mx10Y	6.78	0.01	6.79	6.71	7.08
6Mx30Y	5.95	-0.01	5.94	5.89	6.21
2Yx2Y	7.58	0.22	7.80	7.58	7.84
2Yx5Y	7.15	0.08	7.23	7.15	7.35
2Yx10Y	6.72	-0.01	6.71	6.71	6.89
2Yx30Y	5.94	-0.01	5.93	5.93	6.12

Source: J.P. Morgan.

Figure 4: Given the current observed frequency of jumps and size of typical moves, implieds appear cheap in 2- and 5-year tails

Observed jump frequency* (%), average jump size and non-jump size (bp), as well as projected realized vol** and current implied volatility (bp/day), 2/22/2024

	6Mx2Y	6Mx5Y	6Mx10Y	6Mx30Y
Observed jump frequency (%)	19%	19%	19%	14%
Average daily move on jump days (bp)	18.7	16.5	13.9	11.7
Average daily move on non-jump days (bp)	5.3	4.9	4.2	3.6
Projected realized volatility (bp/day)	9.5	8.4	7.1	5.5
Current implied volatility (bp/day)	8.1	7.6	6.9	6.0

Source: J.P. Morgan.
* Jump probability is based on a jump size of 10bp, calculated on absolute value of yield changes. Jump frequency is defined as number of times a "jump" has occurred in the past month
** Calculated as square root of jump size squared times jump frequency plus non-jump size squared times non-jump frequency

Finally, it is worth noting that while jump risk is a prominent factor underpinning our bullish bias on gamma, it is not the only one. **Implieds continue to appear cheap to fair value based on our longer term fair value model.** Residuals have been converging recently, but remain negative in the belly of the curve such as 5Y tails (**Figure 5**). Given this, we recommend unwinding long volatility exposure in sectors that now appear closer to fair (see Trade recommendations) and rotating into sectors that continue to appear mispriced.

One volatility switch that continues to appear attractive is selling 2Yx30Y swaption volatility versus buying 50% of the vega risk in 2Yx2Y swaption volatility. As seen in Figure 5, 30-year tails appear rich on our fair value framework while the 2Yx2Y sector continues to look cheap, making relative value considerations favorable. Moreover, as noted earlier, policy uncertainty and jump risk arguments also favor longs in the 2Yx2Y sector versus the 2Yx30Y sector. It is worth noting that the 50% vega risk on the 2Yx2Y leg comes from the fact that 2Yx2Y implieds have a partial sensitivity to Fed expectations that is twice as much as the 2Yx30Y leg. Given that shifting Fed expectations are a key risk to implied volatility levels overall, such a weighting helps to mitigate this risk. Lastly, this weighted volatility differential still retains some directionality with yields, with the differential (0.5 times 2Yx2Y minus 2Yx30Y) likely to rise in a rally (**Figure 6**). Therefore, **we recommend selling 2Yx30Y swaption versus buying 50% of the vega risk in 2Yx2Y swaption volatility, and paying fixed in 10Y swaps to neutralize the bullish bias in this trade** (see Trade recommendations).

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Figure 5: Implieds continue to appear cheap to fair value in the belly of the curve

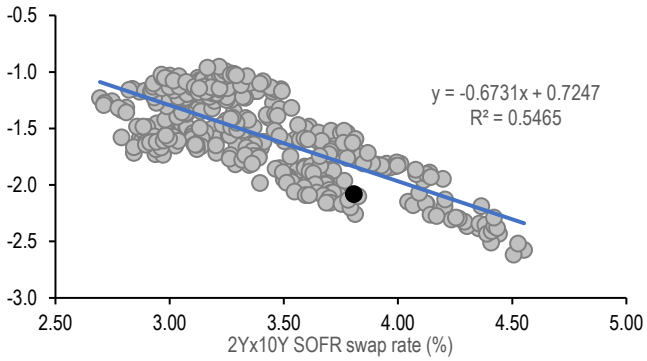
Statistics and coefficients of our fair value model* and residuals from our fair value framework (as of 2/22; bp/day)

Structure	Intercept	ATMF	Log of market depth	Real Rates	Mag. of Fed expect.	Fed Balance Sheet	Forward Guidance	R-squared	Std. Err.	Residual
6Mx2Y	-1.28	-0.95	-1.89	0.57	1.07	0.27	0.0	87%	0.6	-0.02
6Mx5Y	-2.46	-0.29	-1.31	0.26	0.74	0.27	0.0	94%	0.4	-0.24
6Mx10Y	-2.93	-0.21	-0.84	0.20	0.69	0.31	0.0	92%	0.3	-0.22
6Mx30Y	-2.66	-0.42	-0.44	0.20	0.64	0.34	0.0	84%	0.4	-0.01
1Yx2Y	-1.78	-0.50	-1.44	0.40	0.85	0.29	0.0	92%	0.5	-0.16
1Yx5Y	-2.65	-0.08	-1.03	0.21	0.65	0.27	0.0	94%	0.3	-0.32
1Yx10Y	-2.76	-0.13	-0.69	0.17	0.55	0.29	0.0	92%	0.3	-0.04
1Yx30Y	-2.41	-0.39	-0.35	0.18	0.50	0.32	0.0	85%	0.3	0.20
2Yx2Y	-2.11	-0.09	-0.92	0.24	0.70	0.29	0.0	94%	0.4	-0.38
2Yx5Y	-2.56	0.08	-0.81	0.12	0.55	0.24	0.0	94%	0.3	-0.32
2Yx10Y	-2.34	-0.11	-0.57	0.12	0.43	0.24	0.0	92%	0.2	-0.02
2Yx30Y	-1.95	-0.39	-0.27	0.14	0.35	0.26	0.0	84%	0.3	0.31

Source: J.P. Morgan., Federal Reserve H.4., BrokerTec
*Details of our fair value model can be found in Figure 36 in our Interest Rate Derivatives 2024 Outlook).

Figure 6: The weighted implied volatility differential between 2Yx2Y and 2Yx30Y volatility is directional with yield levels and currently appears cheap

0.5* 2Yx2Y implied volatility minus 2Yx30Y implied volatility (bp/day) versus 2Yx10Y SOFR swap rate (%), past 18 months



Source: J.P. Morgan.

Fed balance sheet and swap spreads

Of course, **policy uncertainty also extends to balance sheet policy, in a sense**. We had expected the Fed to announce a tapering in the pace of QT at the March meeting, with implementation beginning the following month. But the January FOMC meeting minutes had little to say on balance sheet policy, where it was mentioned that they would "begin in-depth discussions of balance sheet issues" to guide an "eventual" decision on when to slow the pace of run-off. Given this language, our economists have pushed back the announcement of a reduction in the monthly caps from the March meeting to the June meeting, with the implementation to start in July (see Just a little patience, M. Feroli, 2/21/2024). One of the first questions to ponder, given this delayed outlook for QT's taper, is whether RRP balances will fall to critically low levels and begin to impair money market functioning. But it appears likely that there is less urgency on this front, as RRP balances may temporarily become stickier. We discuss this below.

Our Fed balance sheet forecast has for some time now reflected our expectation that RRP balances would decline more quickly than Reserves, which would remain fairly sticky even at these elevated levels. The predominant reason for this expectation has been a view that banks' liquidity preference is sharply higher in a post-SVB world. But Reserves have been able to hold steady in part because of a happy coincidence - T-bill supply has been unusually heavy since mid-2023, providing an easy alternative to the RRP and allowing Reserves to hold steady at the expense of a rapidly declining RRP balance (**Figure 7**).

However, **we think this is poised to change in the near-term**. **One**, we are about to enter a period where historically net T-bill supply is about to turn negative **(Figure 8**). And **two**, our expectation for T-bill issuance for the remainder of the year is much lower than what we have seen in 2023 (see *Treasuries*). **Therefore**, it is likely that the low-hanging fruit is behind us, and RRP balances could resist further declines more than they have in recent months. Therefore, **we project that O/N RRP balances will be somewhat more stable in coming months relative to what we have observed over the past 8 months or so**.

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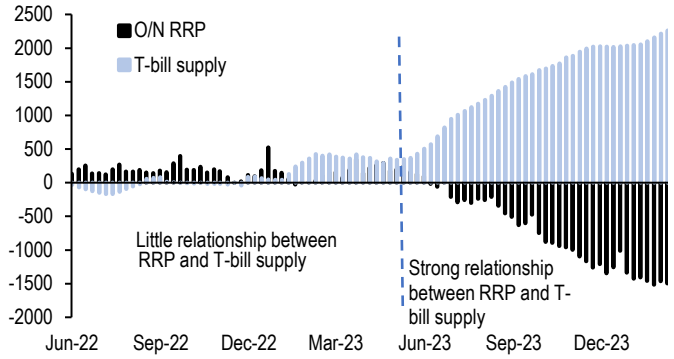
Figure 7: The stickiness of Reserves over the past eight months has been helped by ample T-bill supply, which has provided an attractive alternative to the RRP and thus enabled rapid declines in RRP balances

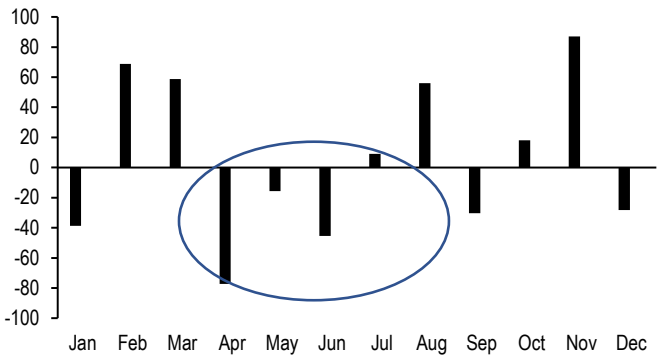
Cumulative change in T-bills outstanding and O/N RRP, 6/1/2022 - current; $bn



Source: J.P. Morgan., Federal Reserve H.4., US Treasury

Figure 8: Seasonally, T-bill supply tends to turn negative in the second quarter

Average of monthly changes in T-bill supply, 2010-2019; $bn



Source: J.P. Morgan., US Treasury

This assumption, together with the now-delayed QT taper, is baked into our revised forecast for the Fed's balance sheet (**Figure 9**). Specifically, **we look for the partial sensitivity of Reserves with respect to Fed balance sheet size to climb back towards 0.75 in the second quarter, and then normalizing back to 0.5**. This is a significant change from recent months, when Reserves have exhibited almost no sensitivity to the size of the Fed's balance sheet. As the Figure also shows, **we expect O/N RRP and Reserves to decline to ~$300bn and ~$3tn by year-end, and for QT to continue through the remainder of the year**, barring an exogenous shock.

Figure 9: We expect O/N RRP and Reserves to decline to ~$300bn and ~$3tn by year-end and for QT to continue through remainder of the year

Current and projected total Fed balance sheet assets, RRP, TGA, Reserves, and Commercial bank deposits* through 2024, $bn; 2/22/2024

End-of-the-month	Fed Assets	RRP			TGA	Reserves	Commercial Bank Deposits
		O/N RRP	Foreign RRP	Total RRP			
Current	7632	575	340	915	789	3523	17430
Mar-24	7487	624	340	964	625	3492	17456
Apr-24	7362	458	340	798	850	3309	17359
May-24	7282	487	340	827	775	3275	17382
Jun-24	7201	483	340	823	750	3223	17390
Jul-24	7151	442	340	782	775	3189	17413
Aug-24	7100	416	340	756	775	3164	17443
Sep-24	7049	375	340	715	800	3130	17466
Oct-24	7001	351	340	691	800	3106	17496
Nov-24	6953	326	340	666	800	3081	17527
Dec-24	6857	303	340	643	800	3009	17519

Source: J.P. Morgan., FRED, Federal Reserve H.4.1, Federal Reserve H.8
* Deposits as of 2/16/2024 Fed H.8. release

This has implications for swap spreads, because one of the important factors behind our widening bias on intermediate maturity swap spreads was an accelerated QT taper timeline. With the onset of taper now likely to be pushed back, and with QT now appearing likely to

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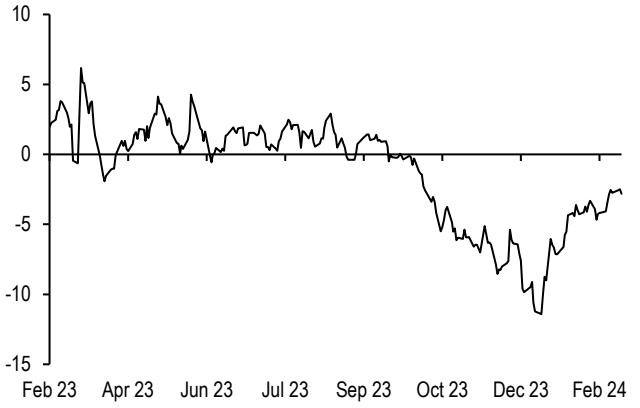
continue all year, this important factor is now a headwind relative to the status quo. At the same time, swap spreads remain modestly below fair value in the belly (**Figure 10**). Therefore, in light of the narrowing pressure from revised QT expectations as well as the fact that spreads remain modestly narrow to fair value, **we now turn neutral on swap spreads in the belly**.

At the long end of the curve, swap spreads in the 30-year sector also remain almost exactly at fair value (**Figure 11**), leading us to maintain our neutral bias in that sector.

Figure 10: Swap spreads in the belly remain a touch below fair value, but we now turn neutral given QT's likely extension relative to prior expectations

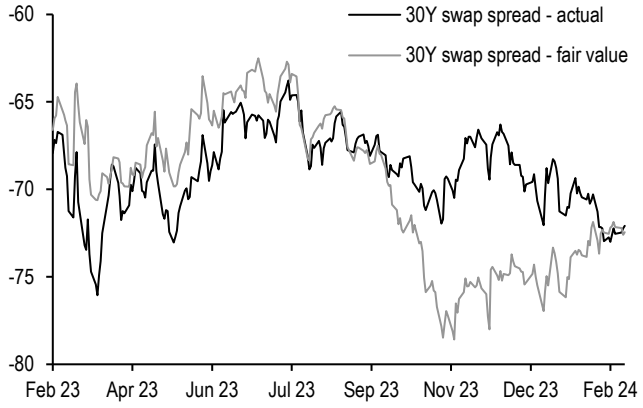
Residual from regression of 5Y maturity matched swap spreads versus their drivers*, past 1 year; bp



Source: J.P. Morgan.
* Fair value for 5-year swap spread is calculated as per the model detailed in Figure 14 of our Interest Rate Derivatives 2024 Outlook

Figure 11: Swap spreads in the 30-year sector remain very close to fair value, leading us to maintain our neutral bias

30-year maturity matched swap spread, actual versus fair value*, past 1 year; bp



Source: J.P. Morgan.
* Fair value for 30-year swap spread is calculated as per the model detailed in Figure 18 of our Interest Rate Derivatives 2024 Outlook

At the front end of the curve, we throw in the towel on our narrowing bias. For one, this view was partially based on our expectation that QT's taper will begin soon and that RRP balances could decline sharply going forward. But given our revised forecasts for the Fed's balance sheet liabilities (discussed earlier in this piece), we now expect RRP to be somewhat stickier in the near term. Moreover, with T-bill issuance poised to turn negative in the second quarter, front end swap spreads could remain well supported. Therefore, **we turn neutral on front end swap spreads and recommend unwinding spread narrowing positions in the 2-year sector at a loss** (see Trade recommendations).

On a relative basis, the 20-year sector has richened considerably recently (see A potpourri of Treasury RV, J. Barry et al., 2/15/2024) causing the 20s/30s proceeds asset swap spread curve to appear too flat after adjusting for the level of spreads and the 20s/30s UST curve (**Figure 12**). Given the statistically (and numerically) significant dependence of this spread curve on both the level of 20-year spreads and the 20s/30s Treasury curve, we recommend hedging those risks out. In other words, **we recommend a 1.33:1 risk weighted 20s/30s proceeds asset swap spread curve steepener paired with a 30% risk weighted 20s/30s Treasury curve steepener**.

That said, proceeds asset swap spreads are a more structured trade that is far less common in practice, even if it is sometimes necessary at the long end where non-par coupons can introduce considerable rate & curve dependence, making maturity matched swap spread

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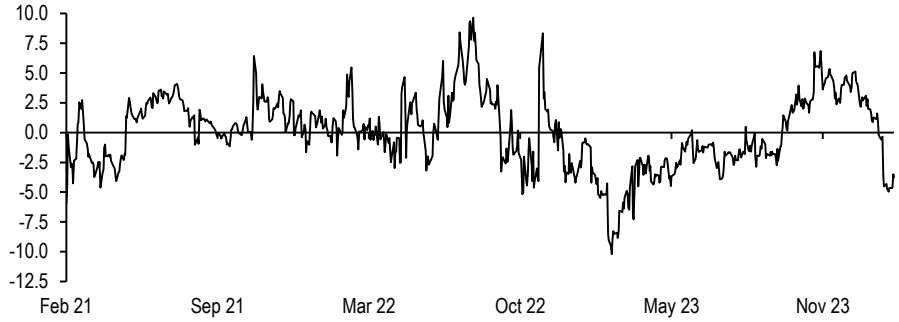
differentials less pure as measures of value. Thus, a simpler expression of this trade involving matched maturity swap spreads would be desirable. Fortunately, in the 20Y sector, the newly issued Feb 44s are pretty close to par, rendering the distinction moot. In the 30Y sector, yields are currently halfway between the 4.125% coupon of the Aug 53s and the 4.75% coupon of the Nov 53s, meaning that a 50-50 notional weighted combination of those bonds serves as an approximate par bond. This motivates a simple 50-50 notional weighted combination of the Aug 53 and Nov 53 maturity matched swap spreads as the 30Y leg of this trade. Therefore, **we recommend paying in a 50:50 notional weighted combination of Aug 53 and Nov 53 maturity matched swap spreads, versus receiving 133% of the combined risk in Feb 44 maturity matched swap spreads. We also recommend adding a 30% risk weighted 20s/30s UST curve steepener to mitigate the curve exposure in this trade** (see Trade recommendations).

Figure 12: The 20s/30s proceeds asset swap spread curve appears too flat after adjusting for the level of 20Y swap spreads and the 20s/30s Treasury curve

Residual from regression of the 20s/30s proceeds asset swap curve vs the 20Y proceeds asset swap spread and 20s30s UST curve, past 3 years; bp



Source: J.P. Morgan.

Swap yield curve

The elevated policy uncertainty has implications for the swap yield curve as well. First, increased dispersion of possible outcomes has created more risk around modal policy paths and risk premium needs to be priced in. This, coupled with the fact that the January FOMC meeting minutes don't appear to signal any urgency to taper QT, has caused our UST strategists to revise their interest rate forecast (see *Treasuries*). In summary, they look for higher levels than previously forecasted (year-end 2-year UST at 3.8% versus 3.25%, and 10-year UST at 3.8% versus 3.65%), and less steepening than they had previously expected. **Their flattish forecast for spot curves, coupled with forwards that are still pricing in considerable front end easing and curve steepening, imply that spot curve flatteners remain attractive sources of carry**.

Even when viewed against empirical estimates of current fair value as opposed to forecasted future expectations, **most swap curves anchored in the front end appear too steep**, while forward curves are now mostly fair (**Figure 13**). Given the success of our empirical fair value model in explaining yield curve moves, this suggests that not only are flatteners an attractive source of carry, but they are also an attractive source of relative value. However, **the same policy uncertainty that we have been highlighting throughout this piece is likely to make yield curves quite volatile, making the risk-reward unattractive on outright curve flatteners motivated by carry**. Indeed, as Figure 13 also shows, the bulk of the moves in yield curves is attributable to swings in near term as well as medium term Fed expectations (proxied by the 3Mx3M OIS and the 3Mx3M / 15Mx3M OIS curve). There-

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fore, **as we look ahead to a period dominated by policy uncertainty, we continue to seek carry trades that are well hedged so as to improve risk-reward characteristics**.

Figure 13: Our empirical fair value model for spot and forward swap yield curves continues to be successful in explaining yield curve moves, and currently suggests that spot curves are too steep while forward curves are fair

Coefficients, curve levels and residuals*, impacts** of each fair value model driver over the period, expected change from fair value model*** and actual change over the period, 1/25/2024 - 2/22/2024; %

	Coefficients								Factor Impact									
	Guidance	3Mx3M OIS	Fed Expec. Crv	Fed B/S	5Yx5Y InflSwp	2Y InflSwp	Curve as of 1/25	Resid. as of 1/25	Guidance	3Mx3M OIS	Fed Expec. Crv	Fed B/S	5Yx5Y InflSwp	2Y InflSwp	FV Expected Change	Actual Change	Curve as of 2/22	Residual as of 2/22
3m fwd 2s/3s	-0.01	-0.11	0.03	-0.02	0.35	-0.05	-0.16	0.12	0.00	-0.03	0.01	0.00	-0.01	-0.01	-0.04	-0.05	-0.21	0.11
3m fwd 2s/5s	-0.04	-0.29	-0.09	-0.03	0.99	-0.13	-0.24	0.20	0.00	-0.07	-0.03	0.00	-0.04	-0.03	-0.16	-0.14	-0.39	0.22
3m fwd 2s/7s	-0.05	-0.42	-0.23	-0.04	1.39	-0.18	-0.23	0.22	0.00	-0.10	-0.07	0.00	-0.05	-0.04	-0.26	-0.21	-0.44	0.27
3m fwd 2s/10s	-0.07	-0.54	-0.38	-0.05	1.73	-0.22	-0.19	0.22	0.00	-0.13	-0.11	0.00	-0.07	-0.04	-0.35	-0.27	-0.46	0.30
3m fwd 2s/30s	-0.10	-0.77	-0.69	-0.09	2.12	-0.24	-0.28	0.23	0.00	-0.19	-0.20	0.01	-0.08	-0.05	-0.51	-0.40	-0.67	0.35
3m fwd 5s/10s	-0.03	-0.24	-0.29	-0.02	0.73	-0.08	0.05	0.02	0.00	-0.06	-0.08	0.00	-0.03	-0.02	-0.19	-0.13	-0.07	0.08
3m fwd 5s/30s	-0.06	-0.48	-0.59	-0.06	1.13	-0.11	-0.03	0.03	0.00	-0.12	-0.18	0.01	-0.04	-0.02	-0.35	-0.25	-0.29	0.13
3m fwd 7s/15s	-0.03	-0.22	-0.30	-0.02	0.60	-0.06	0.12	-0.01	0.00	-0.05	-0.09	0.00	-0.02	-0.01	-0.18	-0.12	0.00	0.04
3m fwd 7s/20s	-0.04	-0.28	-0.38	-0.03	0.69	-0.06	0.11	-0.01	0.00	-0.07	-0.11	0.00	-0.03	-0.01	-0.22	-0.15	-0.04	0.06
3m fwd 10s/30s	-0.04	-0.24	-0.31	-0.04	0.39	-0.03	-0.09	0.01	0.00	-0.06	-0.09	0.00	-0.02	-0.01	-0.17	-0.13	-0.21	0.05
2y fwd 2s/3s	-0.01	-0.08	-0.12	0.00	0.29	-0.04	0.04	-0.01	0.00	-0.02	-0.04	0.00	-0.01	-0.01	-0.07	-0.05	-0.01	0.01
2y fwd 2s/5s	-0.02	-0.20	-0.31	-0.01	0.66	-0.08	0.13	-0.04	0.00	-0.05	-0.09	0.00	-0.03	-0.02	-0.18	-0.11	0.02	0.03
2y fwd 2s/7s	-0.03	-0.27	-0.44	-0.01	0.85	-0.09	0.19	-0.07	0.00	-0.07	-0.13	0.00	-0.03	-0.02	-0.25	-0.15	0.05	0.03
2y fwd 2s/10s	-0.04	-0.33	-0.56	-0.02	1.02	-0.11	0.28	-0.10	0.00	-0.08	-0.16	0.00	-0.04	-0.02	-0.30	-0.19	0.09	0.02
2y fwd 2s/30s	-0.06	-0.48	-0.78	-0.06	1.12	-0.10	0.14	-0.12	0.00	-0.12	-0.23	0.01	-0.04	-0.02	-0.41	-0.27	-0.13	0.03
2y fwd 5s/10s	-0.02	-0.13	-0.24	-0.01	0.36	-0.03	0.15	-0.06	0.00	-0.03	-0.07	0.00	-0.01	-0.01	-0.12	-0.08	0.07	-0.01
2y fwd 5s/30s	-0.04	-0.28	-0.47	-0.05	0.46	-0.02	0.01	-0.07	0.00	-0.07	-0.14	0.00	-0.02	0.00	-0.23	-0.16	-0.14	0.00
2y fwd 7s/15s	-0.02	-0.12	-0.24	-0.01	0.27	-0.01	0.15	-0.05	0.00	-0.03	-0.07	0.00	-0.01	0.00	-0.11	-0.07	0.08	-0.01
2y fwd 7s/20s	-0.03	-0.16	-0.29	-0.02	0.29	-0.01	0.12	-0.05	0.00	-0.04	-0.09	0.00	-0.01	0.00	-0.14	-0.09	0.03	0.00
2y fwd 10s/30s	-0.02	-0.15	-0.23	-0.04	0.10	0.01	-0.14	-0.02	0.00	-0.04	-0.07	0.00	0.00	0.00	-0.10	-0.08	-0.22	0.01
Drivers as of 1/25	0.00	4.89	-1.41	7.73	2.61	2.20												
Drivers as of 2/22	0.00	5.14	-1.12	7.63	2.57	2.41												

Source: J.P. Morgan., Federal Reserve H.4.

*Fair value and residual are calculated using the coefficients shown above, a detailed description of our fair value model for the swap yield curve can be found in Figure 28 from our Interest Rate Derivatives 2024 Outlook

**Impact of coefficient is defined as the change in the driver from 1/25 - 2/22, multiplied by the coefficient of each driver from our fair value model

***Expected change from fair value model is defined as the some of the impacts of each driver

How can one construct such well hedged curve trades? Here we outline three different approaches to doing so. **One**, **we recommend hedging near-spot curve flatteners hedged for exposure to short rates and Fronts / Reds curve,** since these two factors are the dominant factors contributing to curve volatility**.** For example, as Figure 13 also shows, the 2s/3s curve exhibits a partial beta of -0.11 and 0.03 respectively with respect to the 3Mx3M OIS and the 3Mx3M/15Mx3M curve respectively. This means a 3M forward 2s/3s curve flattener is likely to be well hedged by a 14% risk weighted long in the 1st SOFR futures contract and a 3% risk weighted short in the 5th SOFR futures contract (which is small enough to ignore). Moreover, this weighted combination offers ~4bp of carry and slide over 3 months, in addition to a relative value mispricing that is favorable to the tune of ~10bp (as also seen in Figure 13). Therefore, **we recommend initiating 3M forward 2s/3s swap curve flatteners hedged with a small long in the M4 3M SOFR futures contract** (see Trade recommendations).

Two, **we recommend pairing flatteners in sectors that are too steep with steepeners in sectors that are near fair value, weighted appropriately to hedge out exposure to Fronts / Reds curve**. These box trades can be constructed using any curves, but we focus on the ones that share a common middle leg, so that the trade reduces to a butterfly. Figure 13 also points us to such a trade. For instance, the 3M forward 2s/7s curve is 27bp too steep, while the 7s/20s curve is 6bp too steep. Moreover, if we pair a 2s/7s flattener with a 7s/20s steepener using a 1:0.6 ratio, the combination will likely exhibit no sensitivity to the Fronts/Reds curve, given the partial sensitivities to those factors. However, such a combination would exhibit sensitivity to the 3Mx3M OIS rate, with a -0.25 beta on a net basis. Thus, we may hedge this out with a fourth leg. The package trade then reduces to receiving fixed in the belly of a -1/1.6/-0.6 weighted 2s/7s/20s swap butterfly, coupled with a 0.25 risk weight in a long in the first 3M SOFR futures contract. After rescaling the weights to conform to

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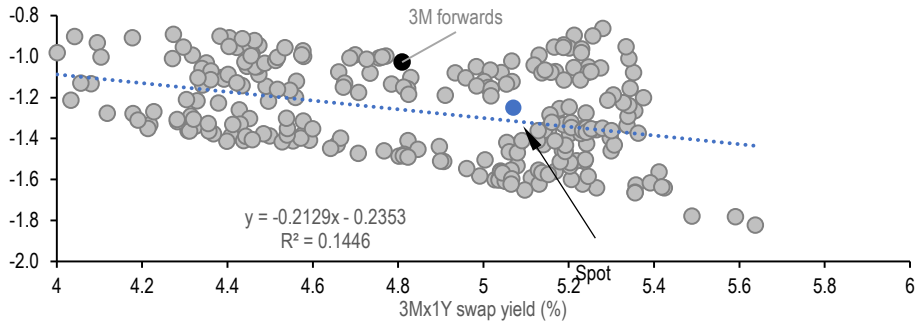
the convention that the belly carries unit risk, this trade reduces to **receiving fixed in the belly of a 0.625/1.0/0.375 weighted 3M forward 2s/7s/20s swap butterfly, with an additional 15% risk weighted long in June 2024 3M SOFR futures** (see Trade recommendations). Additionally, this trade provides ~5bp of carry and slide over 3 months.

Three, we continue to recommend implementing carry trades conditionally in a selloff, using payer swaptions. For example, given current ATMF implied volatility levels, we can buy 3Mx1Y ATMF payer swaptions versus selling only 95% of the risk in 3Mx5Y ATMF payer swaptions. But as seen in **Figure 14**, the 95:100 weighted 1s/5s curve is negatively correlated with yields, making it likely to flatten in a selloff. Last but not least, 3M slide on the 1s/5s curve is an attractive +18bp, and forward rates are lower than spot rates (which means that payer swaptions are likely to finish in the money) , making conditional weighted 1s/5s flatteners attractive in a selloff. Therefore, **we recommend this trade** (see Trade recommendations).

Figure 14: The weighted 1s/5s swap curve has tended to be negatively correlated with front end yields, and is likely to flatten in a selloff

0.95*3M forward 5Y swap yield minus 3M forward 1Y swap yield (%) regressed against 3Mx1Y swap yield (%), past 1Y



Source: J.P. Morgan.

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Trading Recommendations

- **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**
  Implieds in 2Yx2Y appear cheap with respect to our fair value model while 2Yx30Y implieds appear rich. The 50% vega weighting mitigates the sensitivity of the vol switch to Fed expecations, but the weighted vol differential retains a bullish bias which can be hedged by a small pay-fixed position in 2Y forward 10Y swaps.
  -Buy $100mn notional 2Yx2Y ATMF swaption straddles. (Notification date: 2026-02-23, swap tenor: 2Y, ATMF: 3.645%, strike: 3.645%, spot premium: 243.9bp per notional, forward premium: 266.8bp per notional, bpvol at inception: 7.8bp/day).
  -Sell $21.3mn notional 2Yx30Y ATMF swaption straddles. (Notification date: 2026-02-23, swap tenor: 30Y, ATMF: 3.513%, strike: 3.513%, spot premium: 1740.5bp per notional, forward premium: 1905.8bp per notional, bpvol at inception: 5.87bp/day). This trade assumes active delta hedging every business day.
  -In addition, pay-fixed in $5.5mn notional of a 02/23/26x10Y SOFR swap at a yield of 3.723% (PVBP: $747.0/bp per mn notional).
  Swap notional is calculated assuming a beta of 0.65, using the relationship in Figure 6 of the piece
- **Initiate 20s/30s 1.33:1 risk weighted 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**
  On a relative basis, the 20-year sector has richened considerably recently causing the 20s/30s proceeds asset swap spread curve to appear too flat after adjusting for the level of 20Y spreads and the 20s/30s curve, making it attractive to initiate spread curve steepeners hedged with 30% risk in 20s/30s Treasury curve steepeners. In addition, rather than trading the more-involved proceeds asset swap, we recommend blending the Nov 53s and Aug 53s (equal notional) to create a synthetic approximately par bond. Since the OTR 20Y is already near par, no such blending is needed in that leg.
  -Pay fixed in 4.125% Aug 15 2053 maturity matched SOFR swap spreads. Buy $35mn notional of the 4.125% Aug 15 2053 (yield: 4.396%, PVBP: $1591.2/bp per mn notional), and pay fixed in $45.1mn notional of a maturity matched SOFR swap (coupon: 3.669%, PVBP: $1764.5/bp per mn notional) at a swap spread of -72.8bp.
  -Pay fixed in 4.75% Nov 15 2053 maturity matched SOFR swap spreads. Buy $35mn notional of the 4.75% Nov 15 2053 (yield: 4.377%, PVBP: $1726.2/bp per mn notional), and pay fixed in $48.7mn notional of a maturity matched SOFR swap (coupon: 3.667%, PVBP: $1774.1/bp per mn notional) at a swap spread of -71.0bp.
  -Receive fixed in 4.5% Feb 15 2044 maturity matched SOFR swap spreads. Sell $131.1mn notional of the 4.5% Feb 15 2044 (yield: 4.523%, PVBP: $1303.4/bp per mn notional), and receive fixed in $159.7mn notional of a maturity matched SOFR swap (coupon: 3.853%, PVBP: $1381.5/bp per mn notional) at a swap spread of -67.0bp.
  -The notionals on the Nov 2053 and the Feb 2054 bonds are netted out with the 20s/30s OTR Treasury curve steepener hedge.
- **Initiate 3M forward 2s/3s swap curve flatteners hedged with a 14% risk weighted long in the M4 3M SOFR futures**
  Flatteners are an attractive source of carry and most swap curves anchored in the front end appear too steep, making relative value considerations attractive. But policy uncertainty poses a risk and yield curves may be volatile. We recommend hedging out this risk with a 14% longs in June 3M SOFR futures. This package offer 4bp of carry over 3

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months.
-Pay-fixed in $100mn notional of a 05/23/24x2Y SOFR swap at a yield of 4.352% (PVBP: $195.6/bp per mn notional). Receive-fixed in $68.1mn notional of a 05/23/24x3Y SOFR swap at a yield of 4.128% (PVBP: $287.1/bp per mn notional). This trade is being initiated at a yield spread of 22.4bp.
-Buy 110 contracts of SFRM4 at 94.905. The risk weight on this leg is 14%.

- **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**
  Similar to the logic in the previous trade, swap curves anchored in the front end appear steep while curves anchored in the belly appear fair. By combining two such curves that share a leg, we find value in this butterfly. The butterfly is weighted to have no exposure to the Fronts/Reds curve, but remains exposed to near term Fed expectations, which can be hedged with a small long in the M4 3M SOFR futures contract. Lastly, this trade carries positively at about ~5bp over a 3 month horizon.
  -Pay-fixed in $190.8mn notional of a 05/23/24x2Y SOFR swap at a yield of 4.349% (PVBP: $195.6/bp per mn notional). Receive-fixed in $100mn notional of a 05/23/24x7Y SOFR swap at a yield of 3.866% (PVBP: $597.1/bp per mn notional). Pay-fixed in $16.4mn notional of a 05/23/24x20Y SOFR swap at a yield of 3.822% (PVBP: $1366.0/bp per mn notional). This trade uses risk weights of -0.625/1.0/-0.375 on the 3Mx2Y/3Mx7Y/3Mx20Y swaps respectively. This trade is being initiated at a yield spread of 28.5bp.
  -Buy 358 contracts of SFRM4 at 94.905. The risk weight on this leg is 15%.
- **Initiate conditional exposure to a flatter 1s/5s swap yield curve in a selloff using 3M expiry payer swaptions**
  We continue to recommend implementing carry trades conditionally in a selloff using payer swaptions. The options markets currently allow buying 3Mx1Y ATMF Payer swaptions versus selling only 95% of the risk in 3Mx5Y ATMF payer swaptions almost premium neutral. Moreover, carry on this package is high at 18bp, and forward rates are lower than spot, making conditional weighted 1s/5s flatteners attractive in a selloff.
  -Buy $250mn notional 3Mx1Y payer swaptions. (Notification date: 2024-05-23, swap tenor: 1Y, ATMF: 4.8%, strike: 4.8%, spot premium: 21.8bp per notional, forward premium: 22.1bp per notional, bpvol at inception: 7.21bp/day). Sell $54.9mn notional 3Mx5Y payer swaptions. (Notification date: 2024-05-23, swap tenor: 5Y, ATMF: 3.925%, strike: 3.925%, spot premium: 108.3bp per notional, forward premium: 109.7bp per notional, bpvol at inception: 7.7bp/day).
  -This trade is constructed at the forwards and takes in a small premium at inception.
- **Unwind calendar spread narrowers in WN futures**
  As the roll cycle is nearly 50% complete, we recommend unwinding this calendar spread at a loss of -0.7 ticks. For original trade write up, see US Treasury Market Daily 2024-02-13.
- **Unwind calendar spread narrowers in UXY futures**
  For the same reason as above, we recommend unwinding this calendar spread at a loss of -0.8 ticks. For original trade write up, see US Treasury Market Daily 2024-02-13.
- **Unwind calendar spread narrowers in TU futures**
  For the same reason as above, we recommend unwinding this calendar spread at a loss of -0.3 ticks. For original trade write up, see US Treasury Market Daily 2024-02-13.
- **Unwind exposure to underweighting 2s in a selloff versus a 30/75 weighted blend of 3s and 5s using 3M fwd payer swaptions**
  This trade has outperformed our expectations and we unwind at a profit of 5.4bp. For original trade write up, see Fixed Income Markets Weekly 2024-02-09.

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- **Unwind longs in H5 and Z5 3M SOFR futures contracts (30:100 weighted) versus shorts in U4 3M SOFR futures contracts (100% risk weight) and continue to pay-fixed in 6M forward 10Y swaps (40% risk weight)**
  This trade has outperformed expectations and we recommend unwinding at a profit of 5.8bp. For original trade write up, see Fixed Income Markets Weekly 2024-02-09.
- **Unwind conditional exposure to a composite flattener in a selloff by buying 3Mx2Y payer swaptions (100% risk) versus selling 3Mx5Y and 3Mx30Y payer swaptions (24% and 100% risk respectively)**
  This trade has outperformed expectations and we recommend unwinding at a profit of 14.3bp. For original trade write up, see Fixed Income Markets Weekly 2024-02-02.
- **Unwind 2s/5s (100:60 weighted) maturity matched swap spread curve steepeners**
  We turn neutral on front end spreads and recommend unwinding at a loss of 3.3bp. For original trade write up, see Fixed Income Markets Weekly 2024-01-26.
- **Unwind overweights in 6Mx10Y swaption straddles versus selling 110% of the vega risk in 1Yx10Y swaption straddles**
  As the residual on these tails have converged to near fair value, we recommend unwinding this trade at a profit of 1.3abp. For original trade write up, see Fixed Income Markets Weekly 2024-01-26.
- **Unwind wideners on swap spreads in the belly using the 2.625% Feb 2029 issue**
  In light of the narrowing pressure from revised QT expectations as well as the fact that spreads remain only modestly narrow to fair value, we now turn neutral on swap spreads in the belly and recommend unwinding at a profit of 2.4bp. For original trade write up, see Fixed Income Markets Weekly 2024-01-19.
- **Unwind wideners on swap spreads in the belly using the 2.625% Feb 2029 issue, hedged with longs in 2Yx2Y swaption straddles**
  For the same reason as above, we recommend unwinding at a profit of 2.7bp. For original trade write up, see Fixed Income Markets Weekly 2024-01-19.
- **Unwind overweights in 2Yx2Y swaption straddles versus a vega-neutral amount of 5Yx5Y swaption straddles**
  This volatility switch now appears fairly priced with respect to the expiry curve and tail curve and we recommend unwinding at a profit of 3.2abp. For original trade write up, see Fixed Income Markets Weekly 2024-01-19.
- **Unwind long exposure to 2Yx2Y volatility with a suitably weighted short in July Fed funds futures to hedge the downside risk from a fall in Fed-easing expectations**
  The residual on the 2Yx2Y has converged by over 0.5 bp/day, and although implied volatility in this sector remains cheap, we prefer owning it versus the 2Yx30Y sector. Therefore, we recommend unwinding this trade at a profit of 2.6abp. For original trade write up, see Fixed Income Markets Weekly 2024-01-05.
- **Unwind long gamma exposure in the 1Yx10Y sector**
  1Yx10Y now appears fair with respect to fair value and we recommend unwinding this trade at a loss of 2.1abp. For original trade write up, see Fixed Income Markets Weekly 2023-12-08.
- **Continue to overweight 6Mx2Y swaption straddles versus a theta-neutral amount of 6Mx5Y swaption straddles**
  P/L on this trade is currently -1.9abp. For original trade write up, see Fixed Income Markets Weekly 2024-01-19.
- **Maintain exposure to rising term premium by selling the belly of a 35/65 weighted 3M forward 5s/10s/15s butterfly**

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P/L on this trade is currently -1bp. For original trade write up, see Fixed Income Markets Weekly 2023-12-08.

- **Maintain exposure to long curve volatility by buying 6Mx2Y and 6Mx10Y straddles (41:60 vega weighted) versus selling 6Mx5Y straddles**
  P/L on this trade is currently -0.7abp. For original trade write up, see Fixed Income Markets Weekly 2023-12-08.

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			
3Y wideners, using old 5's bonds	2/3/2023	2/24/2023	7.2
100:70 weighted 20s/30s swap spread curve steepeners	1/27/2023	2/24/2023	1.2
30-year swap spread wideners paired with a short in Yen futures	2/24/2023	3/10/2023	(5.3)
Swap spread narrowers in the 5Y sector	3/3/2023	3/10/2023	3.7
Initiate FV / US Invoice spread curve steepeners via FVM3 and USM3, paired with a 20% risk-weighted short in USM3	3/3/2023	3/10/2023	0.2
Initiate swap spread wideners in the 3Y sector	3/10/2023	3/24/2023	5.1
2s/3s swap spread curve flatteners coupled with a 10% risk-weighted 2s/3s Treasury curve flattener	1/20/2023	4/14/2023	(7.0)
USM3 invoice spread wideners, paired with 10% short in the USM3	3/17/2023	4/28/2023	2.0
2Y swap spread wideners, paired with buying 7% risk in SFRM3	3/31/2023	5/5/2023	(7.5)
2s/5s swap spread curve flattener	4/14/2023	5/5/2023	(10.0)
USM3 invoice spread wideners in a rally	3/17/2023	5/5/2023	1.2
7Y spread narrowers	4/21/2023	6/2/2023	(1.4)
TY invoice spread narrowers by selling TYM3 and receiving fixed in a forward starting swap	4/21/2023	6/2/2023	(0.4)
10Y spread narrower	5/12/2023	6/2/2023	(5.7)
4s/5s swap spread curve flatteners	6/2/2023	7/14/2023	4.0
Initiate 0.45:1 risk weighted 2s/3s swap spread curve flatteners paired with a 20% beta-weighted M5/M6 SOFR futures steepener	5/19/2023	7/28/2023	(8.2)
10Y spread widener	7/14/2023	7/28/2023	0.7
2Y spread widener	6/2/2023	8/18/2023	1.6
10Y spread narrower	7/28/2023	8/18/2023	1.1
10Y spread narrower	8/25/2023	9/8/2023	1.6
3Y spread widener	8/18/2023	9/22/2023	(0.2)
FV invoice spread wideners by buying FVZ3 and paying fixed in a forward starting swap	9/8/2023	9/29/2023	(2.2)
Initiate 10s/30s swap spread curve flatteners	9/15/2023	10/13/2023	0.3
2Y spread narrowers	10/13/2023	10/27/2023	1.2
5s/10s swap spread curve flatteners, paired with a 10% risk-weighted 5s/10s Treasury curve flattener	10/13/2023	12/8/2023	1.2
FV/UXY invoice spread curve flatteners , paired with a 10% risk-weighted FV/UXY Treasury futures curve flattener	10/13/2023	12/8/2023	1.7
Initiate swap spread narrowers in the 2Y sector	11/3/2023	12/8/2023	3.9
Initiate swap spread wideners in the 5Y sector	11/3/2023	12/8/2023	(3.2)
Initiate 20s/30s swap spread curve flatteners hedged with a 35% risk-weighted 20s/30s Treasury curve flattener	9/29/2023	1/5/2024	0.2
Initiate 3s/5s swap spread curve flatteners	12/8/2023	1/5/2024	0.9
Initiate swap spread wideners in the 5Y sector	1/5/2024	1/19/2024	4.2
Pay in 1.375% Nov '31 maturity matched swap spreads paired with 5% risk in 5s/10s OTR Treasury curve steepeners	1/10/2024	1/26/2024	2.4
Initiate 5s/30s swap spread curve flatteners	12/15/2023	2/2/2024	3.8
Initiate swap spread narrowers in the 30Y sector	1/5/2024	2/2/2024	0.2
Maintain a widening bias on swap spreads in the belly but switch to the 2.625% Feb 2029 issue	1/19/2024	2/23/2024	2.4
Maintain a widening bias on swap spreads in the belly using the 2.625% Feb 2029 issue, but hedge the narrowing risk from higher implied volatility with a long in 2Yx2Y swaption straddles	1/19/2024	2/23/2024	2.7
Initiate 2s/5s (100:60 weighted) maturity matched swap spread curve steepeners	1/26/2024	2/23/2024	(3.3)

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Duration and curve	Entry	Exit	P/L
1Yx1Y / 3Mx3Y swap curve flatteners paired with 20% risk in 3Mx18M / 1Yx2Y swap curve flatteners	02/15/23	02/24/23	10.2
27Mx3M / 18Mx1Y steepeners, paired with 10% risk in receive-fixed 1Yx1Y	02/15/23	03/13/23	(12.7)
Sell the belly of the U3/M4/H5 3M SOFR futures butterfly (-0.33:1:-0.77 risk weighted)	02/24/23	03/13/23	(29.4)
Conditional exposure to a steeper 1s/5s swap yield curve in a rally using 3M expiry receiver swaptions	02/24/23	03/13/23	59.3
2Y6Mx10Y / 2Y6Mx30Y swap curve steepeners with a 10% risk-weighted long in the 9Mx3M sector and a 25% risk-weighted short in the 21Mx3M sector	03/03/23	03/13/23	6.0
U3/Z3 SOFR futures steepeners (90:100 risk weighted) hedged with a 20% risk-weighted long in U5 SOFR futures	03/10/23	03/13/23	(2.3)
15Mx3M / 2Yx1Y swap curve flatteners paired with 30% risk longs in 3Mx2Y rates	04/14/23	04/28/23	5.2
3Mx7Y receive fixed swaps, paired with 42% risk in 1Yx1Y and 42% risk in 3Mx5Y payer swaps	03/31/23	05/05/23	(10.6)
Pay in the belly of a 35:55 weighted 3Yx1Y / 5Yx5Y / 3Mx15Y swap yield butterfly	04/14/23	05/05/23	(13.0)
2Yx5Y / 2Yx10Y swap curve steepeners paired with 3Mx2Y/3Mx10Y swap curve flatteners (1:1 risk weighted)	04/14/23	05/05/23	(10.3)
6M forwad 5s/10s flattener, hedged with long in rates	05/05/23	06/02/23	4.5
Position for a flatter 70:100 weighted 5s/20s swap curve in a selloff	05/19/23	06/02/23	6.2
Sell the belly of a H4/M4/U4 SOFR futures butterfly	04/28/23	06/09/23	0.7
Initiate 3M forward 3s/7s flatteners, paired with 35% long in 3Mx5Y to hedge against further steepening in a rally	06/02/23	06/09/23	3.4
Initiate conditional 3s/7s flatteners in a selloff constructed with 3M expiry payer swaptions and financed by selling 20% of the forward DV01 risk in 3Mx5Y payer swaptions	06/02/23	06/09/23	2.7
Initiate 6M forward 10s/30s flatteners, paired with 25% long in 6Mx2Y	05/12/23	07/07/23	1.5
Position for a cheaper 47:55 weighted 7s/10s/20s swap butterfly in a selloff	05/19/23	07/07/23	2.6
Initiate conditional 10s/30s flattener in a selloff constructed with 3M expiry payer swaptions, financed by selling 17% of the forward DV01 risk in 3Mx3Y payer swaptions to make the package premium neutral	06/02/23	07/07/23	5.7
Conditional richening of the belly of a 1s/5s/20s swap butterfly in a rally using 6M expiry receiver swaptions	01/20/23	07/14/23	0.1
Initiate 2Y forward 5s/30s steepeners hedged with a 15% weighted long in U3 3M SOFR futures and a 35% weighted short in U4 3M SOFR futures	07/07/23	07/14/23	12.2
Initiate 10s/15s swap curve flatteners hedged with a 15% risk-weighted long in the 7Y sector	06/09/23	08/04/23	(6.8)
Initiate UXY / US treasury futures curve flatteners hedged with a 15% risk-weighted long in the TY sector	06/09/23	08/04/23	(28.0)
2Yx1Y / 3Mx15Y flattener, plus 58% long in 2Yx1Y and 8% short in 6Mx6M	07/14/23	08/18/23	(26.3)
Initiate 6M fwd 1s/20s flatteners paired with 20% risk weighted longs in 3Mx6M and 60% risk-weighted longs in Reds	07/28/23	08/18/23	(35.7)
Initiate conditional exposure to a flatter 1s/10s swap yield curve in a selloff using 3M expiry receiver swaptions	07/28/23	08/18/23	(6.2)
Initiate 3M forward 2s/7s swap curve flatteners hedged with a 35% risk weighted long in the 1Yx1Y sector	08/04/23	08/18/23	(13.9)
Initiate 3M forward 3s/5s flattener hedged with a 15% risk weighted long in the 5th 3M SOFR futures contract	08/04/23	08/18/23	(7.7)
Initiate 2Y forward 1s/10s swap curve steepeners paired with equal risk in a 3M forward 3s/15s swap curve flattener	08/18/23	08/25/23	4.7
Sell the belly of the U4/H5/U5 3M SOFR futures butterfly (-0.43:1:-0.64 risk weighted)	09/08/23	09/22/23	2.3
Initiate 3M forward 2s/10s swap curve steepeners paired with 110% of the risk in Reds/Greens flatteners	09/15/23	09/22/23	4.9
Initiate 3Y forward 2s/10s swap curve steepeners, paired with 1Y forward 1s/5s swap curve flatteners (33% risk weighted)	09/22/23	09/29/23	5.0
Initiate 2Y forward 2s/30s swap curve steepeners paired with equal risk in a 3M forward 2s/30s swap curve flattener	08/25/23	10/20/23	(32.1)
Initiate 3Y forward 3s/30s swap curve steepeners paired with 63% risk in a 3M forward 5s/30s swap curve flattener	09/08/23	10/20/23	(18.3)
Initiate M4/Z4 SOFR futures curve steepeners paired with 55% of the risk in H4/Z5 3M SOFR futures curve flatteners	09/22/23	10/20/23	(9.9)
Initiate conditional exposure to a flatter 2s/10s swap yield curve in a rally using 6M expiry receiver swaptions	09/29/23	11/03/23	(9.2)
Initiate 3M fwd 5s/10s swap curve flatteners paired with 2Y fwd 5s/10s swap curve steepeners (50:100 risk weighted)	10/27/23	11/03/23	4.6
Initiate conditional exposure to a flatter 5s/10s swap yield curve in a rally using 3M expiry receiver swaptions	10/27/23	11/03/23	0.8
Initiate 2Y fwd 2s/5s curve flatteners paired with 25% risk in a 1st/5th SOFR futures curve flattener	11/03/23	11/22/23	5.8
Initiate 6M fwd 5s/15s curve flatteners paired with equal risk in 3Y fwd 2s/15s steepeners	11/03/23	11/22/23	4.6
Buy the belly of a 40:65 weighted Z4/Z5/Z6 3M SOFR futures butterfly	11/03/23	11/22/23	5.6
Initiate 9M fwd 1s/10s flatteners paired with a 50% risk weighted long in March 2025 3M SOFR futures	11/09/23	11/22/23	15.8
Initiate 3Mx1Y / Greens weighted flattener (1:0.8 weighted) paired with 80% risk in a 3M forward 2s/10s swap curve steepener	01/05/24	01/26/24	2.9
Initiate U5/M6 SOFR futures curve flatteners paired with 110% of the risk in Z5/U6 3M SOFR futures curve steepeners	12/15/23	02/02/24	1.6
Buy the belly of a 35:65 weighted H5/H6/Z6 3M SOFR futures butterfly	12/15/23	02/02/24	1.9
Initiate 1Yx2Y / 3Mx30Y swap yield curve steepeners paired with 65% risk in a Reds / 10Yx5Y swap yield curve flattener	01/19/24	02/02/24	1.1
Receive fixed in the belly of a 6M forward 2s/7s/30s swap butterfly (40:69 weighted)	01/19/24	02/02/24	0.1
Initiate conditional exposure to a composite flattener in a selloff by buying 3Mx2Y payer swaptions (100% risk) versus selling 3Mx5Y and 3Mx30Y payer swaptions (24% and 100% risk respectively)	02/02/24	02/23/24	14.3
Buy H5 and Z5 3M SOFR futures contracts (30:100 weighted) versus selling U4 3M SOFR futures contracts (100% risk weight) and pay-fixed in 6M forward 10Y swaps (40% risk weight)	02/09/24	02/23/24	5.8
Underweight 2s in a selloff versus a 30/75 weighted blend of 3s and 5s using 3M fwd payer swaptions	02/09/24	02/23/24	5.4

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Options	Entry	Exit	P/L
Sell 1Yx10Y straddles, paired with pay-fixed swap hedge	02/03/23	03/10/23	(18.5)
Overweight 6Mx30Y straddles with a long duration overlay	02/24/23	03/10/23	18.7
Long 6Mx30Y straddles versus selling vega-neutral 1Yx30Y straddles	04/14/23	05/05/23	3.2
Sell 1Yx2Y straddles vs 5Yx5Y	05/05/23	05/17/23	7.8
Sell 6Mx30Y swaption straddles on a delta hedged basis coupled with a weighted short in S&P 500 futures	04/28/23	06/02/23	(1.0)
Buy 6Mx10Y swaption straddles versus selling 6Mx30Y straddles (using a notional weighting of 2:1)	04/28/23	06/02/23	2.3
Long 6Mx30Y swaption straddles versus selling a theta-neutral amount of 6Mx5Y swaption straddles	05/19/23	06/02/23	(9.9)
Buy 3Yx5Y swaption straddles versus selling a vega-neutral amount of 1Yx5Y swaption straddles	05/12/23	06/09/23	1.6
Sell 1Yx1Y swaption straddles versus buying a vega-neutral amount of 3Yx2Y swaption straddles	05/19/23	06/09/23	0.7
Buy 6Mx5Y swaption straddles, versus weighted longs in S&P futures	06/09/23	07/07/23	12.8
Sell 1Yx10Y 50bp OTM receiver swaptions versus buying 50bp OTM payer swaptions	04/21/23	07/07/23	1.1
Buy 6Mx30Y swaption straddles versus selling a vega-neutral amount of 1Yx30Y swaption straddles	06/02/23	08/04/23	(2.7)
Overweight 6Mx10Y swaption straddles versus vega-neutral amount of 1Yx10Y swaption straddles	07/07/23	08/04/23	1.0
Sell 5Yx10Y straddles vs 9Mx30Y straddles	07/14/23	08/04/23	5.9
Overweight volatility in 5Y tails versus 15Y tails using 9M expiry swaptions	07/28/23	08/18/23	(7.9)
Sell volatility on 5-year tails paired with a pay-fixed swap overlay	08/18/23	08/25/23	6.2
Sell 6Mx30Y swaption straddles versus buying 6Mx10Y and selling 6Mx2Y straddles on a suitably weighted and delta hedged basis	08/04/23	09/08/23	0.0
Sell 9M expiry single-look YCSO straddles on the 5s/30s curve, versus buying 35% vega-weighted amount of 9Mx2Y swaption straddles	06/02/23	09/08/23	2.3
Sell volatility on 30-year tails paired with a pay-fixed swap overlay	08/25/23	09/15/23	8.6
Sell 2Yx5Y swaption straddles versus buying 10Yx10Y swaption straddles	08/25/23	09/15/23	5.3
Buy 10Yx10Y straddles	03/17/23	09/22/23	1.9
Sell 2Yx2Y swaption straddles versus buying a vega-neutral amount of 1Yx10Y swaption straddles	08/25/23	09/29/23	3.4
Buy 1Yx10Y straddles versus selling 140% of the vega risk in 1Yx5Y straddles and buying 50% of the risk in 1Yx2Y swaption straddles	08/25/23	10/13/23	3.2
Sell 2Yx30Y swaption straddles versus buying a vega-neutral amount of 10Yx10Y swaption straddles	09/08/23	10/13/23	(4.5)
Sell 2Yx2Y swaption straddles versus buying a vega-neutral amount of 7Yx10Y swaption straddles	09/15/23	10/13/23	3.0
Sell 6Mx30Y swaption straddles with a pay fixed swap overlay	09/22/23	10/13/23	(11.6)
Sell 1Yx30Y swaptions straddles versus buying a vega-neutral amount of 5Yx30Y swaption straddles, paired with a 1Yx30Y pay-fix swap	09/22/23	10/13/23	(1.5)
Overweight 6Mx7Y swaption volatility versus a vega-neutral amount of 1Yx10Y swaption volatility	10/13/23	11/03/23	3.5
Buy 1Yx10Y swaption straddles paired with a receive-fixed swap overlay to hedge against a decrease in implieds due to lower yields	10/27/23	11/03/23	(1.1)
Initiate short gamma exposure in the 6Mx30Y sector	11/03/23	12/08/23	7.9
Sell 6Mx30Y swaption straddles versus buying a vega-neutral amount of 1Yx30Y swaption straddles	11/03/23	12/08/23	0.4
Initiate long gamma exposure in the 1Yx10Y sector	12/08/23	02/23/24	(2.1)
Initiate long exposure to 2Yx2Y volatility with a suitably weighted short in July Fed funds futures to hedge the downside risk from a fall in Fed-easing expectations	01/05/24	02/23/24	2.6
Overweight 2Yx2Y swaption straddles versus a vega-neutral amount of 5Yx5Y swaption straddles	01/19/24	02/23/24	3.2
Overweight 6Mx10Y swaption straddles versus selling 110% of the vega risk in 1Yx10Y swaption straddles	01/26/24	02/23/24	1.3
Others	**Entry**	**Exit**	**P/L**
Long USM3 basis	3/17/2023	5/19/2023	0.7
Long UXYM3 basis	3/31/2023	5/19/2023	0.7
WN calendar spread narrowers	5/12/2023	5/24/2023	1.3
UXY calendar spread narrowers	5/12/2023	5/24/2023	1.6
TU calendar spread narrowers	8/18/2023	8/25/2023	0.5
WN calendar spread wideners	8/18/2023	8/25/2023	(3.5)
Position for a widening in WN calendar spreads	11/9/2023	11/22/2023	1.8
Buy the USZ3/USH4 weighted calendar spread hedged with USZ3/WNZ3 Treasury futures curve flatteners	11/9/2023	11/22/2023	0.2
Position for a narrowing in FV calendar spreads	11/9/2023	11/22/2023	0.3
WN calendar spreads narrowers	2/13/2024	2/23/2024	(0.7)
UXY calendar spreads narrowers	2/13/2024	2/23/2024	(0.8)
TU calendar spreads narrowers	2/13/2024	2/23/2024	(0.3)
Total number of trades			**133**
Number of winners			**90**
Hit rate			**68%**

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Recent Weeklies	
09-Feb-24	Soft landings, TouchdoWNs, and Safety in the End Zone
02-Feb-24	When it rains, it pours
26-Jan-24	All eyes on Washington
19-Jan-24	Polar vortex duration extension
05-Jan-24	Happy new taper
15-Dec-23	On the second day of FOMC, my true dove spoke to me
8-Dec-23	What I tell you three times is true
9-Nov-23	The tail that wagged the market
3-Nov-23	Descent towards a soft landing
27-Oct-23	Refunding, FOMC and Payrolls - a witch's brew awaits
20-Oct-23	Early Onset Volloween
13-Oct-23	Darkening skies, even before the solar eclipse
29-Sep-23	Bennu there, done that
22-Sep-23	Central banks line up in a holding pattern
15-Sep-23	Hold my Fed
08-Sep-23	A Goldilocks economy leaves us thrice bearish
25-Aug-23	Navigate by the stars when R-star is blurry
18-Aug-23	The Relative Rise of the Curve Factor
04-Aug-23	Everything everywhere all at once
28-Jul-23	Bar-Fed-Heimer
14-Jul-23	Banks to face a higher Barr
7-Jul-23	Cruel Summer
9-Jun-23	Smoke on the water, fire in the sky
2-Jun-23	Hike, skip and jump
19-May-23	Zeno's paradox
17-May-23	US Treasury Market Daily: So you're saying there's a chance?
12-May-23	On the brink
5-May-23	Treasury's Tax Extension Denied
28-Apr-23	Treasury Gets a Tax Extension
21-Apr-23	Debt and Taxes
14-Apr-23	Banking on Earnings
31-Mar-23	The central bank is more central and more bank
24-Mar-23	Fear is now the first principal component
17-Mar-23	Clear Air Turbulence
13-Mar-23	Crossing the Rubicon
10-Mar-23	Powell springs forward, banks fall back
03-Mar-23	Blasts from the distant past
24-Feb-23	Through the looking glass
22-Feb-23	US Treasury Market Daily: Unwind inflation swap longs and calendar spread positions
15-Feb-23	US Treasury Market Daily: 30-year TIPS auction preview; roll estimates; November TIC update

Annual Outlooks	
21-Nov-23	Interest Rate Derivatives 2024 Outlook: Goodbye Hard Times, Hello Great Expectations?
23-Jun-23	Interest Rate Derivatives: 2023 Mid-Year Outlook
Recent Special Topic Pieces	
13-Feb-24	US bond futures rollover outlook: March 2024 / June 2024
9-Nov-23	Death cab for QT
8-Nov-23	US bond futures rollover outlook: December 2023 / March 2024
10-Aug-23	US bond futures rollover outlook: September 2023 / December 2023
1-Jun-23	Open the floodgates
11-May-23	US bond futures rollover outlook: June 2023 / September 2023

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