US Rates Watch

10y rates and the Monty Hall problem

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The Monty Hall problem...

In a game show with 3 different doors and a grand prize behind one of the doors, the contestant is asked to chose one of the doors. He picks door 1, but Monty (the host) opens door 3 instead and shows the participant that there is no grand prize behind it. The problem: should the contestant switch his choice to door 2, or keep door 1?

The initial choice of door 1 locks in a 1/3 chance of success with the information content provided initially. Once door 3 is open, the likelihood of door 3 containing the grand prize collapses to 0%, and the likelihood of the grand prize being behind door 2 increases to 2/3. The contestant should therefore switch to door 2.

... and the relationship to the 10y rate dynamic

The Monty Hall problem is to some extent related to the recent dynamic of 10y yields... with more doors. There are 4 doors in the rates version: hard-landing (c.3% for 10yT and a rapid Fed easing), soft-landing (c.4-4.25% for 10yT and a Fed easing pace closer to quarterly), no-landing (up to c.5-5.25% for 10yT and Fed on hold for longer), and reacceleration (up to 5.5-5.75% for 10yT and the potential for further Fed hikes).

The market had picked door 2, the soft-landing, which has driven a buy-the-dip stance on duration and a strong appetite for carry strategies. However, as the market moved recently to pricing a near-term start of the easing cycle as baseline, the likelihood of doors 3 and 4 (no-landing and reacceleration scenarios) is likely to collapse as these scenarios are inconsistent with near term policy easing. The market is switching to higher likelihoods for door 1, i.e., higher hard landing likelihood.

Bottom line:

The above is a light-hearted way to understand the recent rates dynamic but does still provide some insights. As the market collapses likelihoods towards the range of outcomes between soft-landing and hard-landing scenarios, we should expect:

- The top end of the range for 10yT to shift towards c.4-4.25%, consistent with the pricing of soft-landing scenarios.
- The bottom end of the range to re-set lower toward the midpoint of the range between hard-landing (c.3%) and soft-landing (c.4-4.25%), i.e., closer to the 3.5% levels. 10yT levels sub-3.5% are likely to require a significant higher level of conviction in baseline hard-landing scenarios, and we don't think there is a compelling case to be made for a repricing of this magnitude in the current context.

However, the way macroeconomic data softens in the first stages of a hard-landing scenario may not look very different from a soft-landing dynamic, and that may drive the market to express a more negative balance of risks, which continues to justify trading ranges in yields broadly with a bullish bias. We recommend investors to continue to buy the dip in the lower rate range.

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Likelihoods collapse towards landing scenarios

In range of outcomes and likelihoods (see note from 11 Jun '24), we discretized the range of outcomes for the US economy, Fed policy, rates, curve and volatility dynamic (see Exhibit 1) between hard-landing scenarios (10yT consistent with c.3%), soft-landing (c.4-4.25%), no-landing (10yT yields up to 5-5.25%) and reacceleration scenarios (10yT yields up to 5.5-5.75%).

Exhibit 1: Discretization of the range of outcomes into 4 potential scenarios

Implications under each of the scenarios for Fed policy, rate ranges, curve dynamic and volatility, along with the current market implied likelihoods

	Macro Data			Rate ranges				Market Implied likelihood
	Growth	Inflation	Fed	10yT	3y1y OIS	Curve dynamic	Volatility	
Hard landing	<0%	2% or below	Cuts > 1 per quarter	c.3%	c.1.5-2%	Bull steepening with 2s10s up to 75-100bp	Higher gamma, potentially lower intermediates	c.20-25%
Soft landing	>0% & < 2%	2% target	Cuts once per quarter steady pace	c.4%	c.3-3.5%	Inverted for longer. Gradual steepening to 0bp medium term	Lowest	c.37.5-42.5%
No landing	At or slightly > potential (c.2%)	2% medium term	Higher for longer	Max 5-5.25%	Max 4.5-4.75%	Potential bear steepening to flat or marginally positive	Slightly higher steady state	c.32.5-37.5%
Reacceleration	> growth and/or > inflation		Hikes (neutral repricing up to pre-GFC)	Max 5.5-5.75%	1y1y potentially c.6-6.25% & 3y1y OIS c.4-4.25%	Bear flattening	Higher for both gamma and intermediates	c.0-5%

Source: BofA Global Research; Note: Current likelihoods estimated from the 10y BE dynamic and CDF for 10y SOFR rates by end '24

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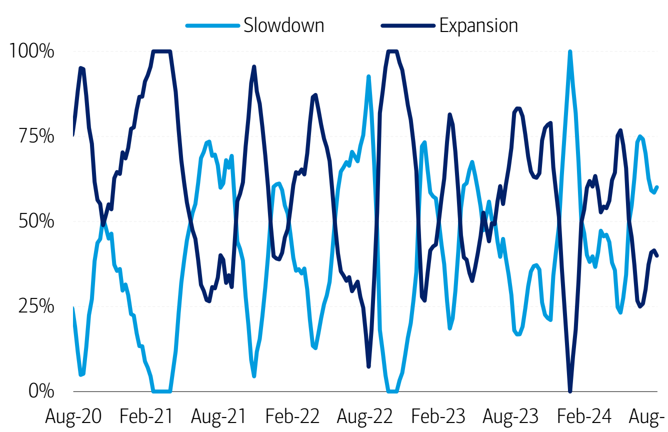
For most of the last year, the market has seen the range of outcomes between soft-landing and no-landing scenarios as baseline. 10yT yields have accordingly oscillated in the 4% to 5% range. In that dynamic, the midpoint of the range (c.4.4-4.5% yields for 10yT) separated periods where the market conviction was biased toward expansion (e.g., throughout most of 1Q and 2Q24 – see Exhibit 2) or slowdown scenarios (e.g., more recently since late May / early June).

Exhibit 2: Frequency of slowdown (bull tightening) & expansion (bear widening) moves in the dynamic of 10y inflation breakevens

Currently 60-65% frequency of slowdown moves vs 30-35% frequency of expansion moves



Source: BofA Global Research

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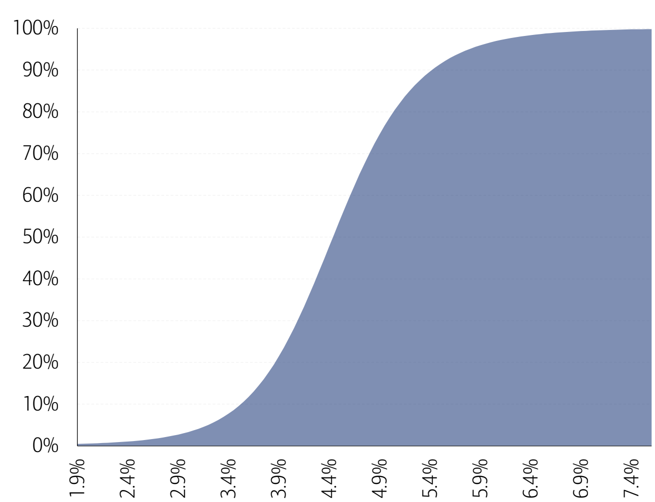
Exhibit 3: 10y CDF

Implied by 10y SOFR options expiring at end '24



Source: BofA Global Research

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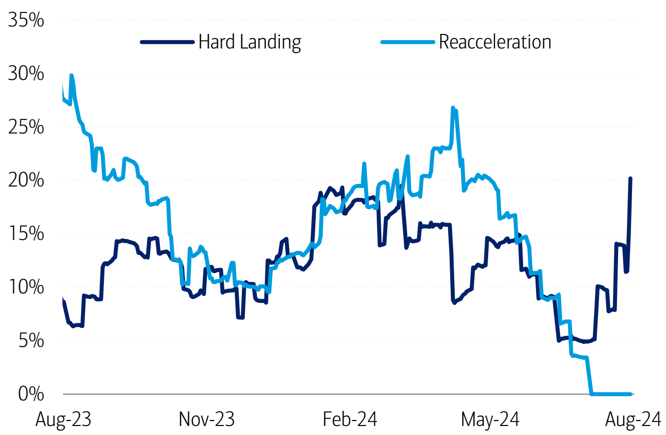
However, (1) the recent slowdown in data, and (2) the frontloading of the first Fed cut to September (inconsistent with reacceleration scenarios and to some extent also with no-landing scenarios) is likely to continue to push the market into a collapse likelihoods towards the range of outcomes in between hard-landing scenarios (currently c.20-25% likelihood, extracted from both the 10y CDF for end-'24 – see Exhibit 3 – and the frequency of bull steepening moves on the 2s10s curve – see Exhibit 4) and soft-landing scenarios (currently c.37.5-42.5% likelihood, extracted from the dynamic of 10y breakevens – see Exhibit 2).

Exhibit 4: Likelihood of tail scenarios (hard landing and reacceleration) implied from the 2s10s curve dynamic

Curve dynamic suggesting higher likelihood assigned to hard landing (c.20%) vs. reacceleration scenarios (c.0%)



Source: BofA Global Research

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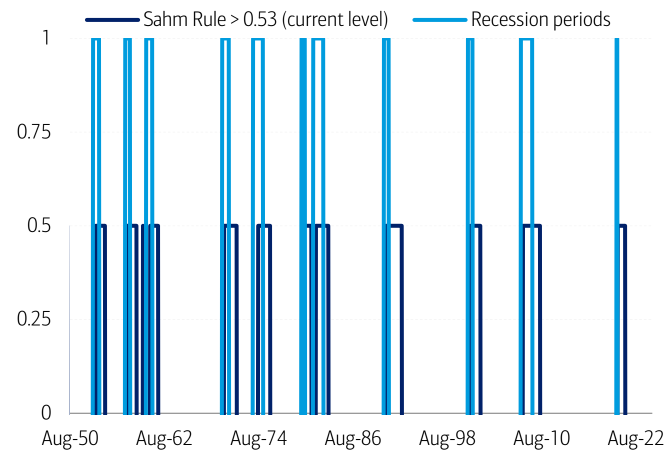
Exhibit 5: Sahm Rule and recession periods since the '50s

Periods where the Sahm Rule value is at, or above, current levels (0.53) generally coincide with recession periods



Source: BofA Global Research, Bloomberg

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… imply a reset of 10yT range

The natural implication of this potential shift in likelihoods (which to some extent is already running its course) is a shift in range for 10yT yields. As the market collapses likelihoods towards the range of outcomes between soft-landing and hard-landing scenarios, we should expect:

- The top end of the range for 10yT to shift towards c.4-4.25%, consistent with the pricing of soft-landing scenarios.
- The bottom end of the range to re-set lower toward the midpoint of the range between hard-landing (c.3%) and soft-landing (c.4-4.25%), i.e., closer to the 3.5% levels. While current levels for the Sahm Rule (c.0.53) have historically coincided with recession periods (see Exhibit 5), 10yT levels sub-3.5% are likely to require a significant higher level of conviction in baseline hard-landing scenarios, and we don't think there is a compelling case to be made for a repricing of this magnitude in the current context. However, the way macroeconomic data softens in the first stages of a hard-landing scenario may not look very different from a soft-landing dynamic, and that may drive the market to express a more negative balance of risks, which continues to justify trading ranges in yields broadly with a bullish bias.

Bottom line: We revise lower our US rate forecasts & 10y trading range to 3.5-4.25%; keep buying dips in lower rate range. This range is likely to express a collapse of likelihoods for the outlook into the range of outcomes between soft-landing and hard-landing scenarios.

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