

The Long Climb in JGB Yields Is Nearly Over

JGB yields saw a historic rise between 2022-2026. Most of the rise came from higher inflation expectations and a normalization of term premia. Our analysis shows the Long Climb is likely nearly over.

JAPAN MACRO ADVISORS

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Key Takeaways

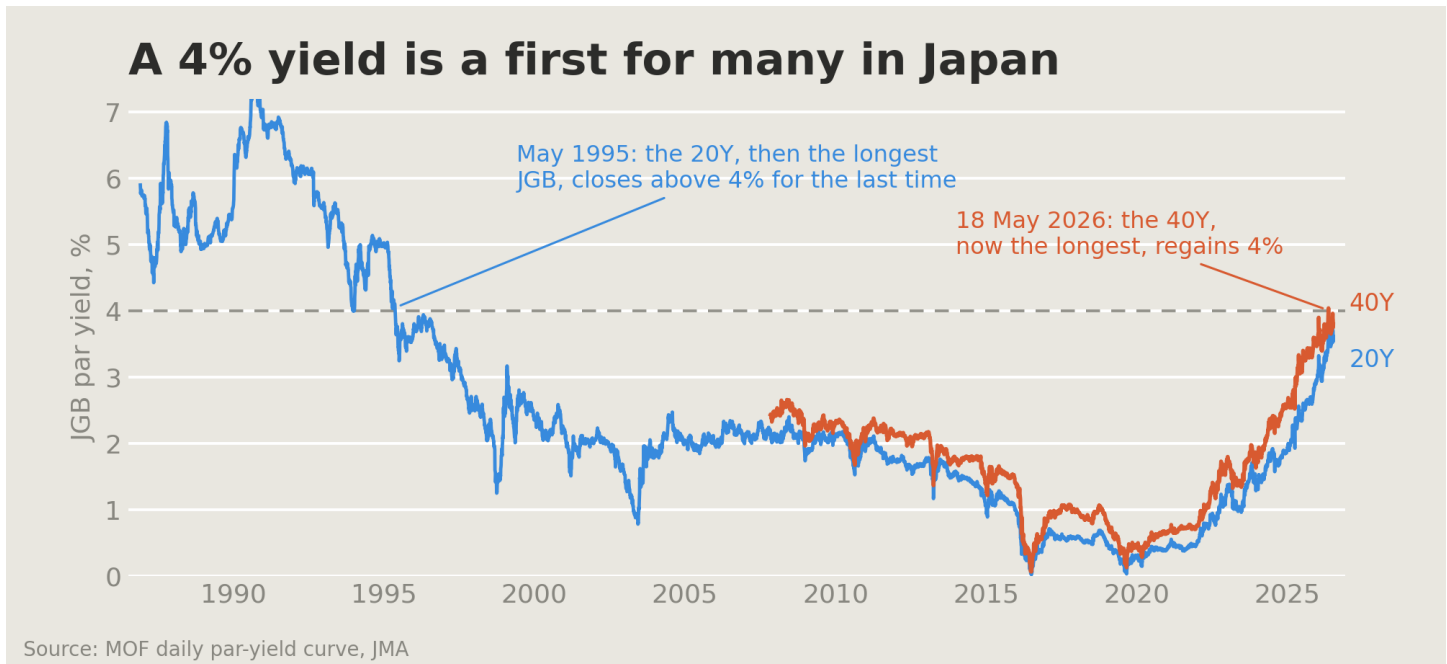
- JGB yields experienced a historic rise between 2022-2026. Most of the rise came from a change in long-run inflation expectations and a normalization of term premia (TP) as the BoJ lifted its unconventional easing.
- TP across the yield curve have largely finished its normalization process. TP at the longer end of the curve are fully back to normal. TP at 10-year has a moderate room to expand further.
- We think the hiking cycle in Japan is already in a late phase. Typically, the longer end of the yield curve start to decline in a late cycle.

JGB yields have been on a Long Climb since 2022

If you are a financial professional in Japan and under the age of 50, chances are you have never “felt” a Japanese government bond yielding more than 4%. By the time I joined the industry in 1997, the 20-year JGB, the longest maturity bond at the time, had already fallen below 4%, and it kept falling into the 2000s. I remember discussing with a friendly senior pension fund manager in the early 2000s who complained about the lack of yield. As a young economist already accustomed to a deflationary mind-set, I felt a 20-year JGB with more than 2% was already generous.

Today the longest maturity JGB is the 40-year, and its yield has been rising persistently from below 1% in 2022 to around 4% now and 20 year yield is also not far behind. When I first saw the news that a zero coupon bond yield, or spot yield, of 40-year bond has crossed the 4% mark in late 2025, I remember feeling a sense of amazement in my mind.

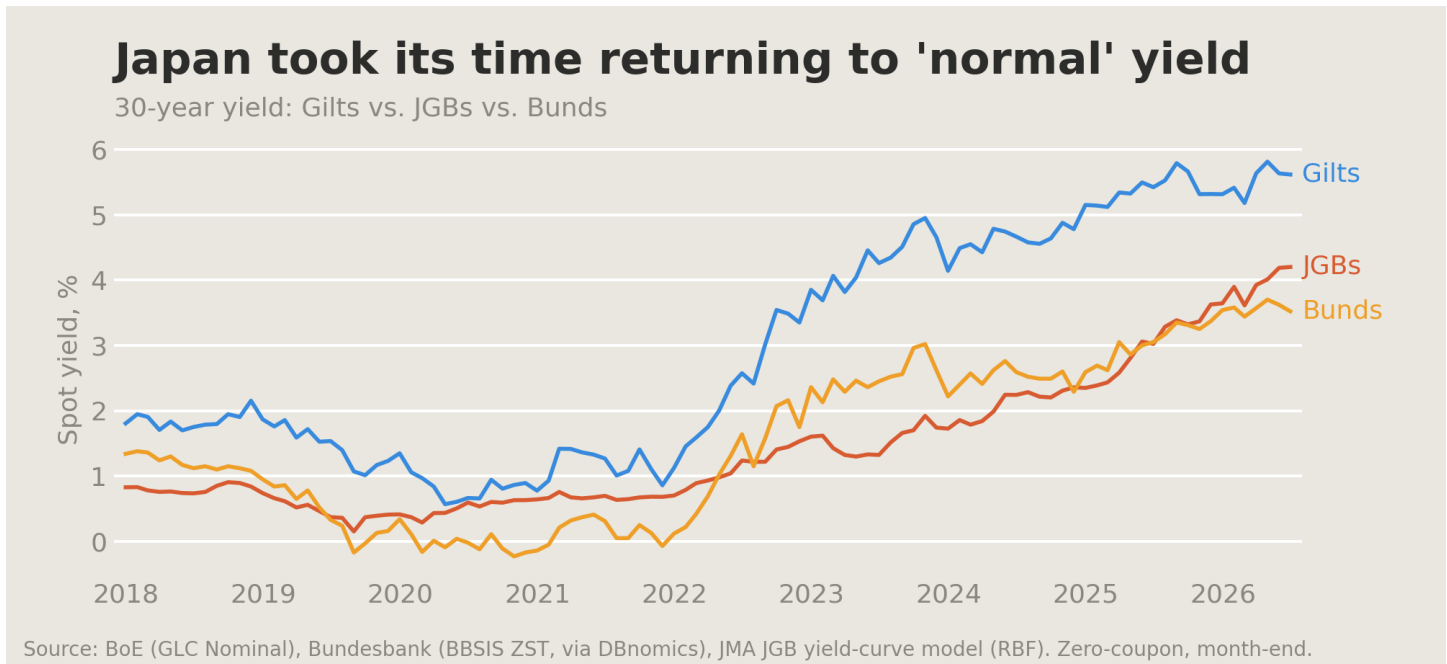
Chart 1



In retrospect, the rise from 1% to 4% was a transition process from a low yield environment to a normal yield environment. And it was a passage other major global bond markets already went through in 2022-23. Remember the “secular stagnation” theory? While the post-covid inflation returned the “secular stagnation” back in a history back in a relatively short span of time, it took a longer time for Japan to realize that the deflationary time is over.

Perhaps it was fortunate or even deliberate that it took a longer time. The transition back to “normal” yield environment was not necessarily a painless process in some part of the world. The UK suffered a mini fiscal crisis in 2022 and its bond market had to be rescued by its central bank. Nothing as dramatic happened in the US, but it suffered the hiccup of the third-largest bank failure in US history, Silicon Valley Bank, in 2023.

Chart 2

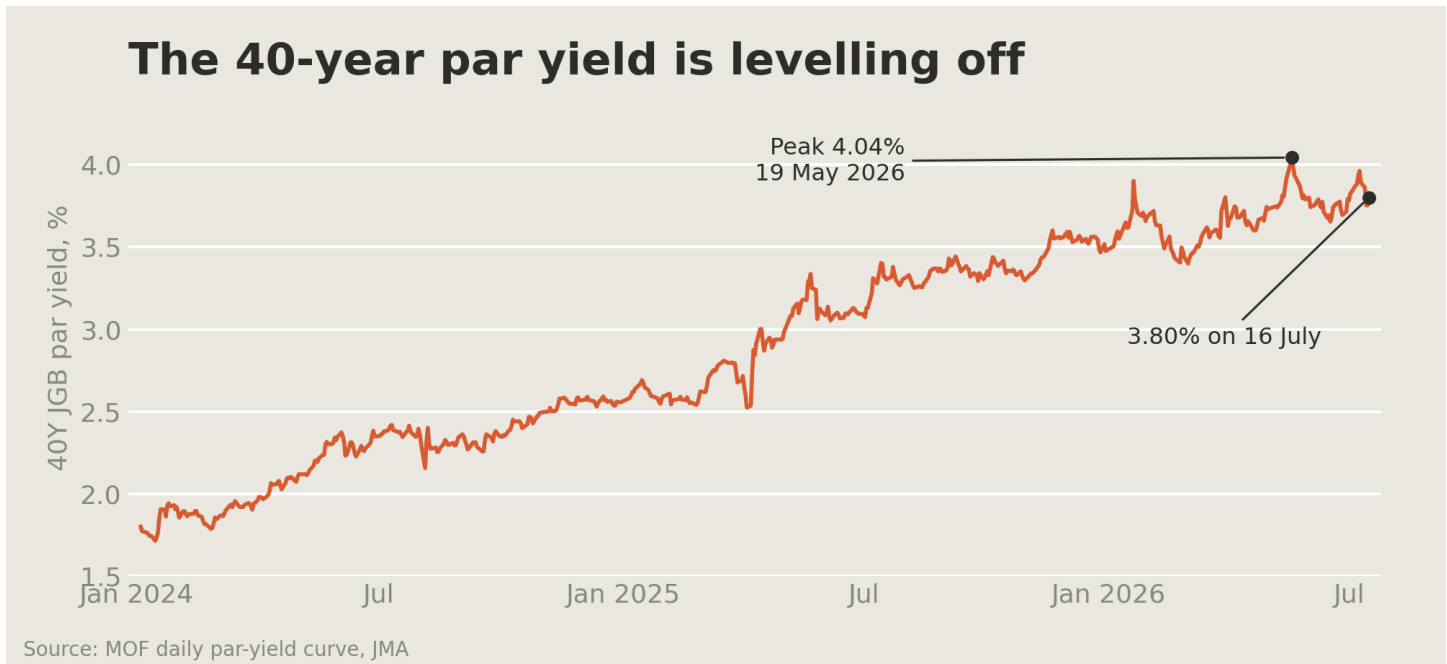


Seen in this light, the long climb in JGB yields from 2022 to 2026 can be seen as a slow and controlled process. Japan did have a few scary moments, such as the Ueda shock of 2024 when the BoJ surprised the market by delivering an unexpected hike and the yen briefly surged as carry trades rushed for the exit. The super-long selloff of mid-2025 was a scary moment too. But in both circumstances, policy makers were able to calm the market. All in all, the long climb so far has been a rather drawn-out affair over 4 years. The question now is: how long does the climb continue?

Our answer: The Long Climb is Nearly Over

Our answer: **the climb is likely nearly over**. The 40-year yield is increasingly showing signs of stabilization in the last 6 months. According to the daily par-yield curve published by the MoF, it peaked at 4.04% on May 19 and has fallen to 3.8% as of July 16. Given the Middle East uncertainty, or more succinctly, the Donald Trump uncertainty, it is probably too early to say that 40-year has stopped rising. As we discuss later, there are future scenarios in which the longer end of the yield curve may resume the climb in earnest. But, the inevitable unpredictability of the future aside, the transition from the deflationary, low-yield era to a “normal” yield era appears nearly complete, in my view. According to a model I will explain later, the fundamental forces that were driving the Long Climb have mostly run their courses.

Chart 3



In the next two sections, I will explain what I think drove the Long Climb and why I think it is likely nearly over.

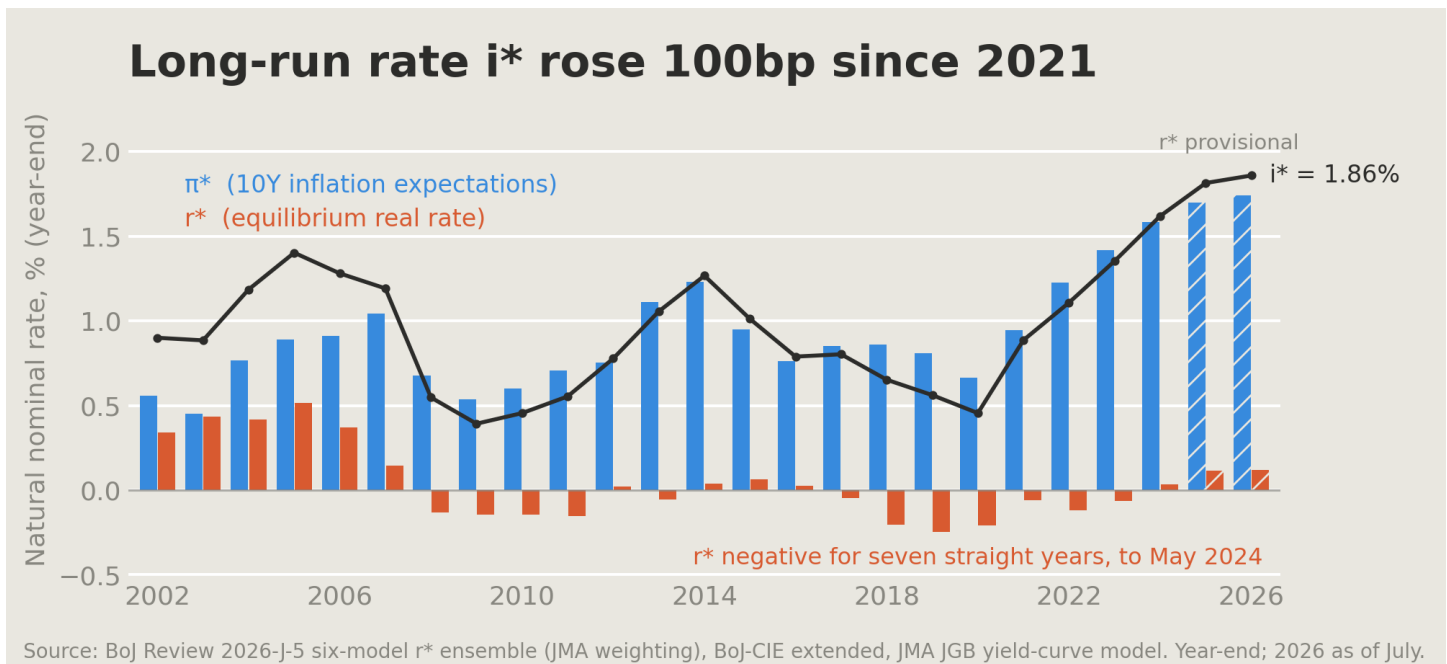
What drove the Long Climb: deflation's end, and the BoJ's exit

In our analysis, broadly two forces drove the Long Climb since 2022. One is economic, and the other is the historic change in Japan's monetary policy.

Force one: the end of deflation

The economic force comes mostly from the rise in inflation expectations and additionally from the rise in Japan's real interest rate. According to the BoJ's Composite Index of Inflation Expectations (BoJ-CIE), 10-year inflation expectations sat well under 1% for most of the 2000s and 2010s (see chart below). The BoJ's extraordinary easing from 2013 helped lift the inflation expectation, but the big push came when the post-Covid global inflation wave reached Japan in 2022. On our extension of the BoJ-CIE indices, 10-year inflation expectations rose from 0.9% in 2021 to around 1.7% today. The real interest rate has risen too. There are a number of competing estimates, but on our weighted average of those compiled by the BoJ, it sat below zero for most of the past two decades, turned marginally positive in 2024, and stands at around +0.1% today. In my model analysis, the economic forces contributed to the rise in Japan's natural nominal interest rate by roughly one percentage point, from below 1% to about 1.9%.

Chart 4



Please click the link below for interactive charts from this report.

<https://takujiokubo.github.io/jma-data/2026-07-20-long-climb/>

Force two: the BoJ's exit and the term premium

The other force is the historic change in monetary policy. The BoJ's unconventional easing in 2010s, the vast JGB purchases and the yield-curve control (YCC) policy, lowered nominal yields by compressing what we bond analysts call the term premium, the part of the yield that compensate investors for holding the long duration risk. As the BoJ gradually relaxed YCC policy through 2023 and began to reduce its JGB purchases in 2024, the compressed term premium has been returning to its historical norm.

The level of term premium differs depending on the maturity of bonds. In the case of 10 years as an example, we estimate these forces account for about 2.4 percentage points of the rise in the 10-year JGB yield between 2022 and 2026, according to our model that I will explain in the next section. The 10-year JGB spot yield rose from 0.1% at the beginning of 2022 and stands at 2.7% as of mid-July this year, a rise of 2.6 percentage points. So, **the two forces nearly explain the entirety of the rise.**

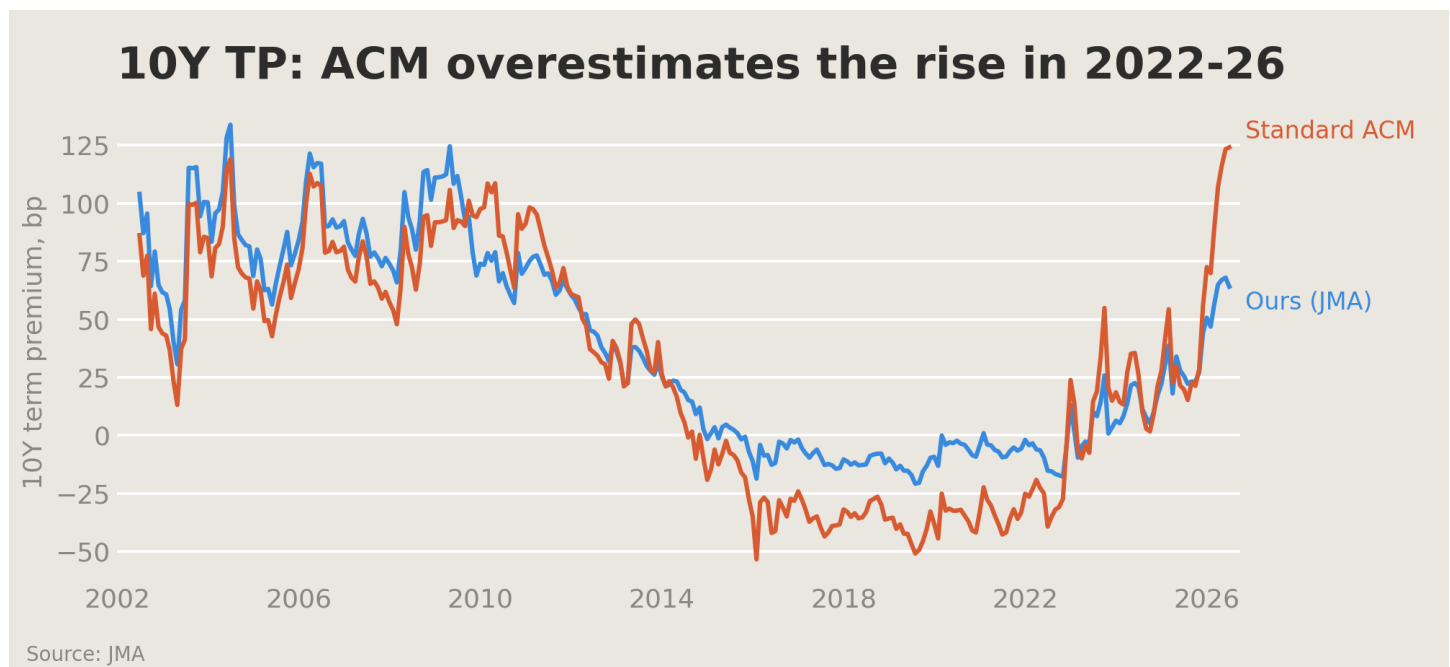
Our model: ACM with rising stars

Our yield-curve model is a variant of the Adrian-Crump-Moench (ACM) model, which splits a bond yield into a risk-neutral (RN) component, the expected path of short-term rates,

and a term premium (TP), compensation for bearing duration risk and other risks. We make one Japan-specific modification. A standard ACM assumes the economy's long-run interest rate to be stable. That assumption does not fit a Japan whose inflation expectations have clearly risen. Following Bauer and Rudebusch's 2020 paper, "Interest Rates Under Falling Stars," we let the underlying stars, trend inflation and the equilibrium real rate, move over time. In Japan's case, they are rising, not falling. For more details on our model, please see the appendix.

The chart below shows what our adjustment to the ACM model does. A standard ACM now puts the 10-year TP around 1.2%, well above its 0.8% historical norm. Our TP reads 0.6% to 0.7%. If you apply the standard ACM model to Japanese yield curve, it generally attributes the rise to TP and TP shoot up when 10 year yield rises. Worse, recent Japanese data has made the standard estimate genuinely unstable. It depends on the length of data set one uses, but if the sample starts around 2000, it would contain twenty years of yields pinned near zero followed by four years of climb, making the estimation of the long-run-rate unstable. I have seen some estimates of a surging TP circulating in the market. They most likely come from standard ACM models, and in my judgement **they significantly overestimate TP in the last few years** as it does not account for the change in long-run interest rate that took place in the last few years.

Chart 5

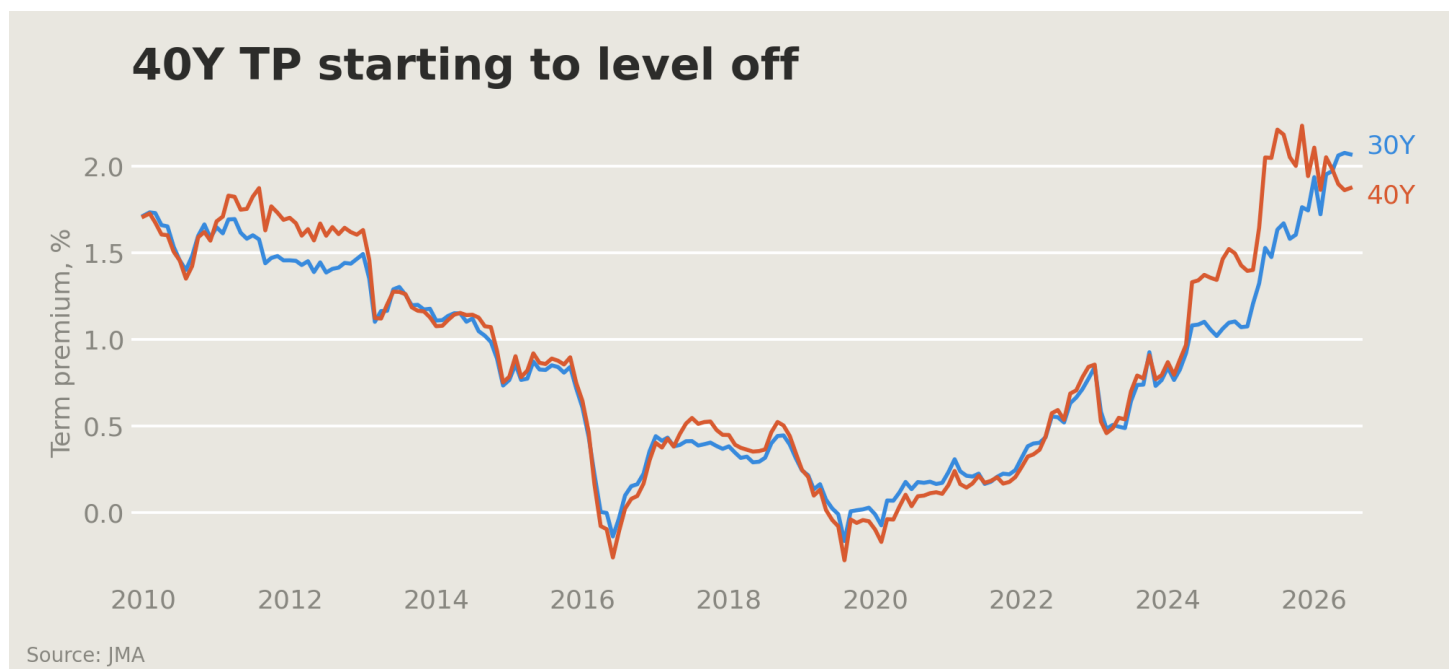


The climb at the long end is likely nearly over

Term premia have fully decompressed

Applying our model to today's curve, we see that **the forces that drove the Long Climb are nearly spent**. The term premia at the 20-, 30-, and 40-year tenors have all fully decompressed from the abnormally low levels they fell to during the unconventional monetary policy era. Our estimate of the 30-year term premium (TP) stands around 2% as of mid-July, a moderately elevated level compared with its historical norm. The 40-year TP, by contrast, has been coming down lately.

Chart 6



Why is the 30-year TP elevated?

Why is the 30-year TP elevated? Some analysts have attributed it to fiscal fear. I do not think so. A premium driven by fiscal concern should push the 40-year TP up as well. Instead, the 40-year TP seems to have stabilized, if not having started to decline.

As we showed in our previous report “[Japan’s Fiscal Vigilantes Are Misreading the Curve](#),” investors in the longer end of the yield curve seem to be willing to pay a premium for low-coupon vintage bonds issued during the deflation-era. Currently, bonds with 21-25 years and 31-35 years maturity are the deflation era vintages (30-year and 40-year issued in 2016-2020). In my view, preference by investors for low coupon bonds is leading to relative cheapness (higher yield) at 28-30 year sector that are sandwiched by deflation era vintages, leading to higher estimate for 30-year bond yields.

The late hiking cycle points to a peak

Technical relative value aside, I do think there are economic reasons to expect the longer end of the curve to stop rising. As I mentioned, fundamental forces that have been driving the yield to rise are largely spent. In addition, the hiking cycle that started in 2024 is most likely already in a mature phase. The policy rate that started at -0.1% in 2024 has already risen to 1%, and getting closer to the current estimate for a long-run rate of 1.8%.

My [current projection](#) is for the BoJ to raise its policy rate to 1.5% by March 2027 and pause. Historically, long end of the yield curve tend to start to decline in the late-cycle. The decline we are seeing in 40-year TP may well be an indication of such cyclicalilty.

An opportunity in the 30-year

There is then an interesting investment opportunity in the 30-year JGB, either as a naked position if your investment horizon and risk tolerance is long enough, or as an arbitrage trade combined with the 40-year. As a macroeconomist, my sense is that the level of superlong interest rates is already fair, given the current inflation and BoJ monetary policy outlook. Below are my yields forecast for the next 3 years.

JGB spot yield forecast, %

	5Y	10Y	20Y	30Y	40Y
Current (17 Jul 2026)	1.94	2.74	3.75	4.26	4.09
Dec 2026	2.24	3.01	3.82	4.22	4.12
Dec 2027	2.56	3.28	3.75	3.92	4.04
Dec 2028	2.49	3.16	3.72	3.86	4.03

Zero-coupon (spot) yields — not directly comparable with the MoF par yields quoted in §2.
Policy rate assumption: 1.25% by Dec 2026, 1.50% terminal from mid-2027.
Source: JMA

What could go wrong for the end of Long Climb call

No forecast is complete without an account of what could break it. In my view, there are three major macro uncertainties for the yield curve.

Scenario 1: supply-shock recession (flattening)

The first is a supply-shock (oil shock) led mild global recession. In this scenario, overseas central banks would have to raise policy rates moderately to keep inflation expectations from

rising, and the yen would likely depreciate. The BoJ would either pause or continue hiking slowly. The longer end of the curve is unlikely to rise, however, and may even decline, as it incorporates the recession and the eventual policy rate cuts that follow once the short-term inflationary pressure subsides. This is a flattening scenario, with policy rates rising and the long end staying put or drifting modestly lower.

A variation of scenario 1: a triple sell-off of US assets

One interesting variation of this scenario is a triple sell-off of US assets, with the Warsh-Fed dithering over whether to raise rates. In this variation, the yen strengthens against the dollar, while the longer end of the JGB curve may get pulled up as US Treasuries sell off. The BoJ will likely pause its hiking cycle. This would lead to a steepening in the short-medium term.

Scenario 2: demand-shock recession (bull-flattening)

The second macro uncertainty is a demand-shock global recession, perhaps through a bursting of the AI stock-market bubble. That would likely strengthen the yen and put the BoJ on pause. The longer end of the JGB curve would likely come down, a bull-flattening scenario.

Scenario 3: overheating and an inflation spiral (bear-steepening)

The third, an upside uncertainty, is an overheating global expansion leading to a weaker yen and an inflationary spiral in Japan with inflation expectations rapidly rising above 2%. The BoJ will then need to raise its terminal rate to above 2% aggressively. This is a bear-steepening scenario in the short-medium term, and the long end of the curve could rise toward 5%, proving the thesis of this report critically wrong.

Conclusion: the Long Climb is likely nearly over

JGB yields have come a long way from the days when the BoJ explicitly capped the 10-year yield at 0.1%. As we have shown in this report, the Long Climb in JGB yields of 2022–2026 is explained by the decompression of the term premia and the rise in inflation expectations. The passage from an artificially compressed yield environment to a normal one could have been a rough one for policy makers, as the UK and US experiences of 2022–23 show. Japanese yields have managed to resurface to normal yield levels without a major financial incident. In our view, term premia at the longer end are now fully decompressed, with the 30-year sector appearing somewhat elevated.

The BoJ's unfinished balance-sheet job

Heavy challenges remain for the BoJ, aside from dealing with macro uncertainties. The Bank has been steadily unwinding its monetary policy accommodation since 2024. It is on a path to reduce its JGB purchases by two-thirds by 2027. It is currently offloading JGBs from its balance sheet on average by 40 trillion yen, worth 6% to GDP, in each of the next few years. Its ownership share of the 25-to-40-year sector has already fallen from 40% in early 2018 to 14% in 2026. Even so, it will take another eight to ten years for its holdings to return to where they stood before unconventional monetary easing began. We will evaluate BoJ's quantitative tightening policy and its implications for the JGB market in another report.

What normalcy looks like from here

What happens now that normalcy has returned to the JGB yields? We think the hiking cycle is already at a mature phase. The likely path from here is a flattening, with the short to belly part of the curve moderately rising while the longer end flattens out. The 10-year yield, the flagship of the JGB market, should soon be above 3% as BoJ stays on its hiking cycle but **3% is what normal looks like**, with inflation approaching the BoJ's 2% target and the economy on a steady footing. The major risk to this outlook remains the third scenario in the previous section, an inflationary spiral that forces the BoJ beyond 2%. As I wrote [elsewhere](#), the communication from the BoJ turned decidedly hawkish in June, acknowledging this risk. We did not discuss the risk scenario of Japan returning to deflation, but the risk is still out there and haunts BoJ officials.

This report is part of a series reassessing Japan's fiscal sustainability. Its contribution to that theme is this. The rise in yields in the last few years should be seen as a transition move from the low yield environment to a "normal" yield environment. I see little sign of a fiscal risk premium embedded in JGB yields and I see an opportunity in 30-year bonds. There are a few more long term themes in the report pipelines and I look forward to finishing them. Thanks for reading this far!

Appendix — The JMA yield-curve model in brief

Any n-year bond yield decomposes as

$$Yield(n) = RN(n) + TP(n)$$

where RN, the risk-neutral component, is the average short-term rate expected over the bond's life, and TP, the term premium, is the residual. Our model estimates this decomposition for JGBs with a variant of Adrian, Crump & Moench (2013). Following Bauer & Rudebusch (2020), we let the long-run level of expected short rates move with its fundamentals, anchoring it to $i^* = r^* + \pi^*$, the equilibrium real rate plus trend inflation expectations, each measured for Japan from the sources below. Term premia are benchmarked against their 2004–2012 averages, the last era of free JGB pricing, after the banking crisis and before QQE.

References.

- Adrian, Crump & Moench (2013), “Pricing the Term Structure with Linear Regressions,” *Journal of Financial Economics*, 2013, vol. 110, issue 1, 110-138. This is the base model. The New York Fed publishes daily ACM term-premium estimates for US Treasuries at its “Treasury Term Premia” data [page](#).
- Bauer & Rudebusch (2020), “Interest Rates Under Falling Stars,” *American Economic Review* vol. 110, issue 5, 1316-54. It is seminal paper demonstrating the legitimacy of time-varying r^* and π^* as determinants of the yield curve.
- Bank of Japan Monetary Affairs Department, “Developments in the Natural Rate of Interest and the Assessment of the Degree of Monetary Accommodation”. [BoJ Review 2026-E-4](#) — the six natural-rate estimates our r^* draws on.
- Osada & Nakazawa (BoJ, 2024), “Assessing Measures of Inflation Expectations: A Term Structure and Forecasting Power Perspective”, [BoJ Review 2024-E-4](#). The Composite Index of Inflation Expectations (BoJ-CIE), the basis of our π^* , was published in 2024. It has not been officially updated, although we have seen BoJ officials use an updated image charts.