



Is the Federal Reserve Taking the Measure of Japan's Yield Curve Control?

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Talk of targeted or capped yields on Treasury bonds is growing, not least among monetary policy makers at the U.S. Federal Reserve. Yields on U.S. five- and 10-year government bonds have traded in relatively narrow ranges in the three months to mid-July, despite a massive second-quarter rally in risk assets, dire economic data and renewed outbreaks of COVID-19 infections in the U.S. and some other parts of the world. That raises the question of whether the Fed is already experimenting in stealth “yield curve control.” As it ramps quantitative easing and flirts with Treasury bond yield caps, it should explain why the Bank of Japan’s dual use of these extreme tools for several years hasn’t resulted in economic recovery or its targeted inflation level.

- After seven years of massive amounts of QE and nearly four of yield curve control, the BoJ has yet to sustainably keep inflation at its 2% target or revive GDP growth meaningfully
- Yield curve control distorts the money pricing function of interest rates by effectively keeping them artificially low and static in a dynamic world
- Market liquidity tends to suffer when fixed prices diverge from broader, changing economic fundamentals and the central bank is crowding out private sector participants
- Bond ladders become difficult to build as benchmark rates are flat to negative a decade or more out, while the equity risk premium has been undermined without the “honest foundation” of a market-determined risk-free rate

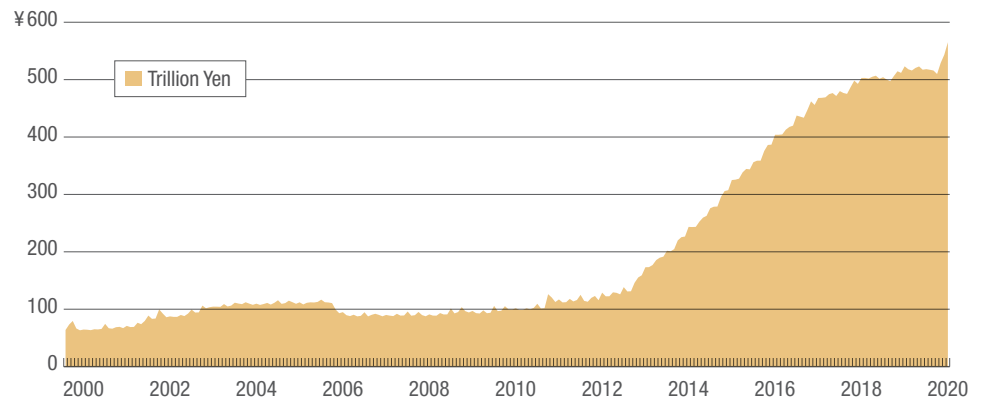
As market bets grow that the Federal Reserve is poised to, if not already exercising, control of U.S. benchmark sovereign rates, it's natural to wonder if Bank of Japan Governor Haruhiko Kuroda ever crossed paths with Charles Goodhart, who served on the Bank of England's Monetary Policy Committee.

Goodhart, an economist, spawned Goodhart's Law, which stipulates that "when a measure becomes a target, it ceases to be a good measure." In September 2016, Kuroda targeted a yield "around zero" on the 10-year Japanese Government Bond (JGB), along with a short-term policy rate of negative 0.1%. This came after three years of expanding BOJ asset purchases, or quantitative easing (QE), in pursuit of a 2% "price stability target," which "provides the foundation for the nation's economic activity."

Does it, though? The BOJ believes so: "In a market economy, individuals and firms make decisions on whether to consume or invest, based on the prices of goods and services. When prices fluctuate, individuals and firms find it hard to make appropriate consumption and investment decisions, and this can hinder the efficient allocation of resources in the economy."

It's hard to miss the ironies in that description of how a market economy allocates resources efficiently. In market-oriented economies, price fluctuations usually serve as critical signals of supply and demand. They are crucial components of consumer spending and business investment. Another is the value of the national currency, which central banks largely oversee by determining very short-term policy rates and money supply with an eye toward ensuring price stability and money market liquidity. But

Chart 1 | BOJ Monetary Base (1 Jan 2000 – 30 Jun 2020)



Source: Bloomberg

market participants typically influence benchmark interest rates through their demand for sovereign bills and bonds across the maturity spectrum.

That's not the case with central bank targeted yield caps. As Thornburg Chief Investment Strategist Brian McMahon points out: "The BOJ just prints money and makes sure the 10-year JGB yield stays at or below zero. The BOJ is the bid."

Static Rates Become Distorted in a Dynamic World

Sovereign yield curves stretch from short- to long-dated bills and notes, and their slope normally reflects market expectations about future rates over the course of natural economic cycles. So, as economic conditions evolve, rates play a critical role for appropriately pricing credit as well as estimating the time value of future cash flows from potential investments. Yield curve control distorts the money pricing function of interest rates by effectively keeping them

artificially low and static in a dynamic world.

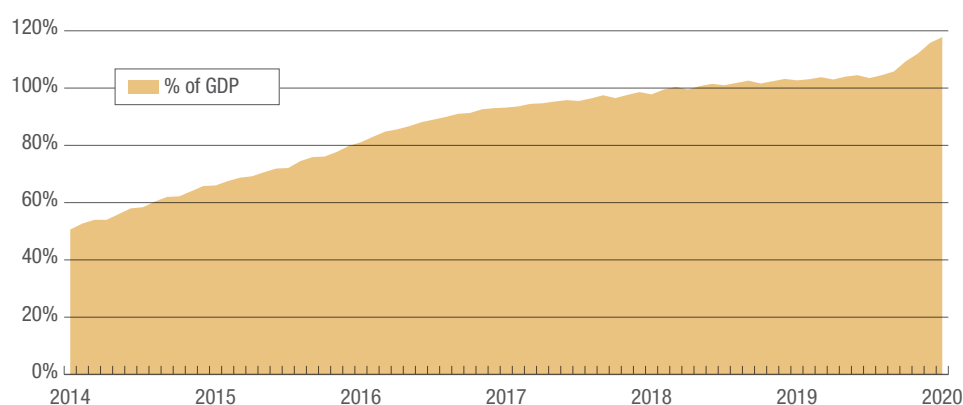
That makes Japan's experiment with it worth examining. Since the popping of its equity market and real estate bubbles three decades ago, the country has suffered several bouts of deflation. Steadily falling prices tend to spur personal savings, hurt borrowers and undercut firms' pricing power as cash is seen to be worth more in the future than in the present. Once entrenched, a deflationary mindset depresses consumer spending, business investment and economic growth.

The BOJ first began trying to drum up inflation via QE, in which asset purchases are financed by money creation, in 2001, inflating its monetary base 60% in two years.³ It tried QE again in 2010, but really started ramping up the printing press in 2013, expanding its monetary base since then 350%. This was the first of Prime Minister Shinzo Abe's "Three Arrows" program to revive growth and rekindle inflation.

Massive fiscal stimulus was the second arrow. The BOJ's balance sheet as a percentage of GDP climbed from about 33% in 2013 to a whopping 118% at the end of June, while gross government-debt-to-GDP rose to 230%, "the highest among Fitch-rated sovereigns, and constrains the rating."⁴ By comparison, the Fed's balance sheet-to-GDP, was 19% at the end of 2019, but has since jumped to 33% of GDP, while the European Central Bank's (ECB) ratio climbed to 53% of GDP from 39% at the beginning of the year.

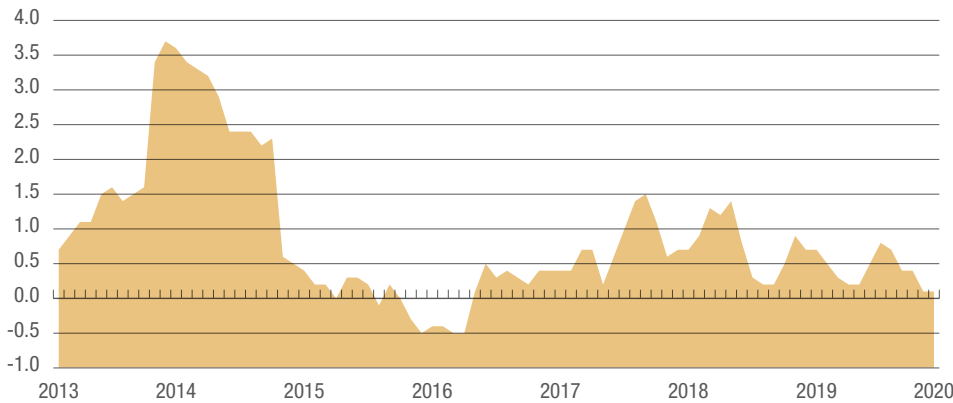
The BOJ formally added yield curve control to the mix nearly four years ago, in September 2016. Despite that addition to all the monetary and fiscal stimulus, inflation hasn't risen to the targeted 2%:

Chart 2 | BOJ Balance Sheet (30 Jun 14 – 30 Jun 20)



Source: Bloomberg

Chart 3 | Japan CPI Nationwide (Year over Year, 10 Jul 13 – 31 May 20)



Source: Bloomberg

Japan's Consumer Price Index (CPI) has averaged 0.5% over the last four years. It ebbed to 0.4% in March, just before Japan declared a coronavirus state of emergency, and sank to 0.1% at the end of May. Nor has the elixir created much economic growth: from the beginning of 2016 through March, Japan averaged annualized quarterly real GDP growth of just 0.4%.

Perhaps the headwind into which the government aimed the third arrow of structural reforms proved a drag. "Japan's private sector has stubbornly resisted structural reform on most fronts," writes Professor Michael Heazle of Kyoto University.⁵ "Government efforts to create more transparency in corporate affairs, provide better and more equal opportunities for women, and wind back the long-held practice of rewarding seniority over achievement have made little or no progress. Productivity remains very low (Japan is 21st in the OECD and the lowest among G7 economies)."

QE and Yield Curve Control Come with Adverse Side Effects

Yet the side effects of QE and yield caps may also play a role in Japan's anemic growth and inflation, even as more QE and a rising debt load are on the way amid government efforts to cushion the economic blow from COVID-19. The BOJ is poised to ingest far more JGBs, along with corporate debt, commercial paper (CP) and equity ETFs: combined monetary and fiscal stimulus is slated to round a staggering 60% of GDP, far exceeding the 44% of GDP that both the U.S. and Europe plan to spend.

Japan's current stimulus plan puts the BOJ on track to control almost half of the country's CP market and one-sixth of its corporate bond market. It

already holds roughly three-fourths of Japanese equity ETFs and about half the JGB market. Since the BOJ instituted yield curve control, market trading volume of JGBs is down around 75% on average, according to Jim Bianco of Bianco Research. Market liquidity tends to suffer when fixed prices diverge from broader, changing economic fundamentals and the central bank is crowding out private sector participants, Bianco explained in a recent podcast.

This is borne out in the minutes of a semi-annual consultation that Japan's Ministry of Finance holds with major institutional investors such as banks and life insurers.⁶ Comments from participants at the most recent meeting are worth quoting at length:

After increasing investment in longer-term (government) bonds to the limit, we will invest by considering not only income gains but also capital gains besides investing in foreign bonds...As a large amount of medium- and long-term bonds purchased in the past are reaching maturity, it will be necessary in the future to purchase a certain amount of JGBs in preparation

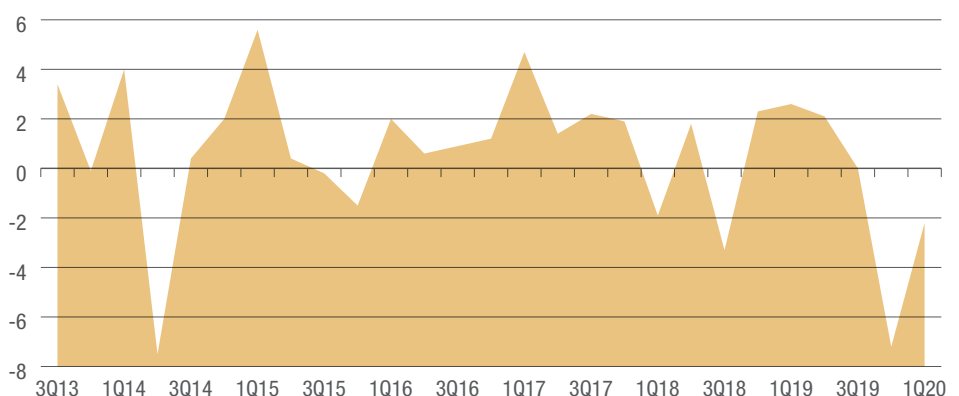
for the possibility that even the interest rate on 20-Year Bonds will be negative. However, from the viewpoint of income, it will be difficult to purchase a large amount of medium- and long-term bonds because their interest rates are negative. Therefore, it will be inevitable to concentrate our purchases in the 20-year zone, where interest rates are still positive, and this means it will be difficult to build a bond ladder...The outstanding amount of investments in JGBs is declining due to its prolonging of negative interest rates.

Fed policy makers are doubtless considering the market distortions created by large-scale financial repression, even as they openly entertain capping Treasury yields. According to the minutes of the Fed's June policy meeting, "many participants remarked that, as long as the committee's forward guidance remained credible on its own, it was not clear that there would be a need for the committee to reinforce its forward guidance with the adoption of a YCT (yield caps or targets) policy."

Risk-Free Rates Lack Their Past Relevance

Yet on June 17, Cleveland Fed President Loretta Mester said she's "open to using it as a reinforcement to forward guidance," while Fed Chairman Jerome Powell told legislators that same day "it's something we're really just educating ourselves on at this point. It's not something we have at all decided to do." Nonetheless, the 10-year U.S. Treasury yield sure seems like it's on a trial run, having mostly oscillated around 0.65% since mid-April, while the five-year Treasury yield has tracked around 0.35% over the same period. So those yields held steady through a huge risk asset rally, mostly shocking economic data

Chart 4 | Japan Real GDP (Annualized, Quarter over Quarter, 3Q13 – 1Q20)



Source: Bloomberg

releases, renewed COVID-19 outbreaks in the U.S. and to degrees elsewhere, and nearly \$3 trillion of Fed asset purchases, two-thirds of which were Treasuries.

The market is already placing its bets around the mid-section of the Treasury curve. “Open interest in five and 10-year futures—a tally of outstanding positions—has surged in the past week, reaching a level equivalent to \$36 billion in cash bonds,” Bloomberg reported on June 30.⁷ “More than half of the economists surveyed by Bloomberg earlier this month expect yield curve control, with most saying an announcement could come in September,” it added.

While “Don’t Fight the Fed” (or the BOJ or ECB) has long been a market axiom,

investors would do well to remember that in volatile markets, portfolios populated with highly selective, attractively priced, fundamentally sound securities stand a better chance of limiting downside in selloffs and compounding off a higher base in QE-fueled recoveries. It’s also important to recognize the distortions that QE and yield curve control create, affecting everything from discounted cash flow analyses to equity risk premia.

As McMahon points out, market interest rates are already compromised. “The concept of the equity risk premium has been broken by the influence of central bank asset purchases and interest rate repression. There’s no market-determined risk-free rate, so you don’t have an honest foundation for that risk-

free rate. As a result, equity investors should see it as too low, and lacking its past relevance.”

A static yield curve, as Goodhart might observe, can’t usefully measure or reflect market expectations about future rates or economic conditions.

Important Information

1. “Price Stability Target of 2% and Quantitative and Qualitative Monetary Easing with Yield Curve Control” - BOJ.
2. Ibid.
3. Quantitative Easing in Japan: Past and Present – Federal Reserve Bank of St. Louis, 10 Jan 2014.
4. Japan’s Coronavirus Response Increases Public Debt Challenge, FitchRatings, 15 Apr 2020.
5. Abe’s Domestic Failings May Cost Japan—and the Region—Dearly, Australian Strategic Policy Institute, 10 Jun 2020.
6. Minutes of the Meeting of JGB Investors, (80th Round), Ministry of Finance, Japan, November 2019.
7. Yield Curve Control Bets are Becoming More Obvious in Treasuries – Bloomberg, 30 Jun 2020.

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Commercial Paper – Unsecured, short-term debt instrument issued by large corporations, typically for the financing of accounts receivable, inventories, and other short-term liabilities.

Consumer Price Index (CPI) – Index that measures prices of a fixed basket of goods bought by a typical consumer, including food, transportation, shelter, utilities, clothing, medical care, entertainment and other items. The CPI, published by the Bureau of Labor Statistics in the Department of Labor, is based at 100 in 1982 and is released monthly. It is widely used as a cost-of-living benchmark to adjust Social Security payments and other payment schedules, union contracts and tax brackets. Also known as the cost-of-living index.

Exchange Traded Fund (ETF) – A security that tracks an index, a commodity or a basket of assets like an index fund, but trades like a stock on an exchange. ETFs experience price changes throughout the day as they are bought and sold.

Quantitative Easing (QE) – An unconventional monetary policy in which a central bank purchases financial assets from the market in order to lower interest rates and increase the money supply.

The MSCI AC (All Country) Asia ex Japan Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of Asia, excluding Japan. The MSCI AC Asia ex Japan Index consists of the following 11 developed and emerging market country indices: China, Hong Kong, India, Indonesia, Korea, Malaysia, Pakistan, Philippines, Singapore, Taiwan, and Thailand.