

## S&P/JPX JGB VIX<sup>®</sup> Update December 2018

### JGB VIX Rises on the Back of Global Panic

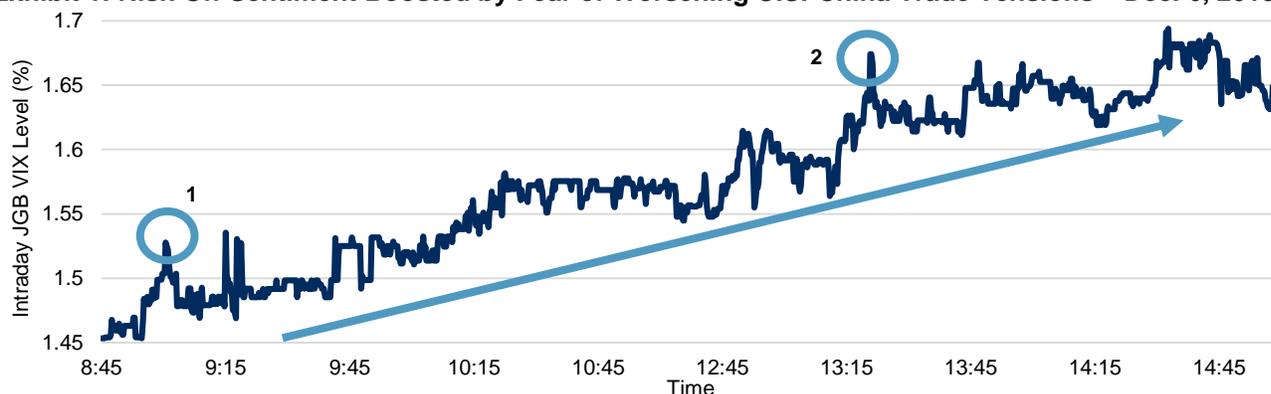
In December 2018, the S&P/JPX JGB VIX rose to levels not seen since July 2018, as global risk aversion gripped Japan’s bond markets (intramonth high of 2.21 on Dec. 20, 2018). The month started off with a high-profile arrest of a senior Chinese executive, which fueled speculation around worsening U.S.-China trade relations. As global equity markets collapsed around fears of escalating trade wars, investors rushed to safe haven assets, which sent global bond yields tumbling lower. JGBs were no different and yields continued to fall, with benchmark 10-year bonds eventually dropping into negative territory. This was the first time 10-year JGBs had gone below zero since September 2017. With markets in disarray, there were increasing calls for central bank action and a return to stability, but the Bank of Japan (BoJ), with limited tools at its disposal, opted to maintain the status quo at the conclusion of its December 2018 meeting.

Volatility JGB VIX Versus TYVIX			
	OCT 2018	NOV 2018	DEC 2018
JGB VIX	81%	48%	121%
TYVIX	94%	70%	98%

Source: Bloomberg, December 2018.

**Note:** Since we are currently evaluating the S&P/JPX JGB VIX as a real-time index, we wanted to share some examples of particularly interesting intraday movements this month. Exhibits 1 and 2 are purely for illustrative/educational purposes only. Please contact us for more details.

**Exhibit 1: Risk-Off Sentiment Boosted by Fear of Worsening U.S.-China Trade Tensions – Dec. 6, 2018**

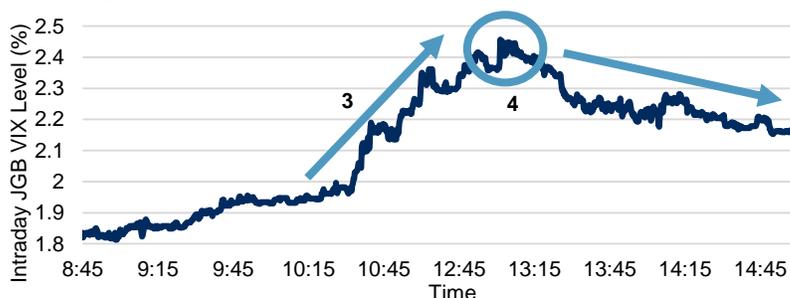


Source: S&P Dow Jones Indices LLC. Data as of December 2018. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

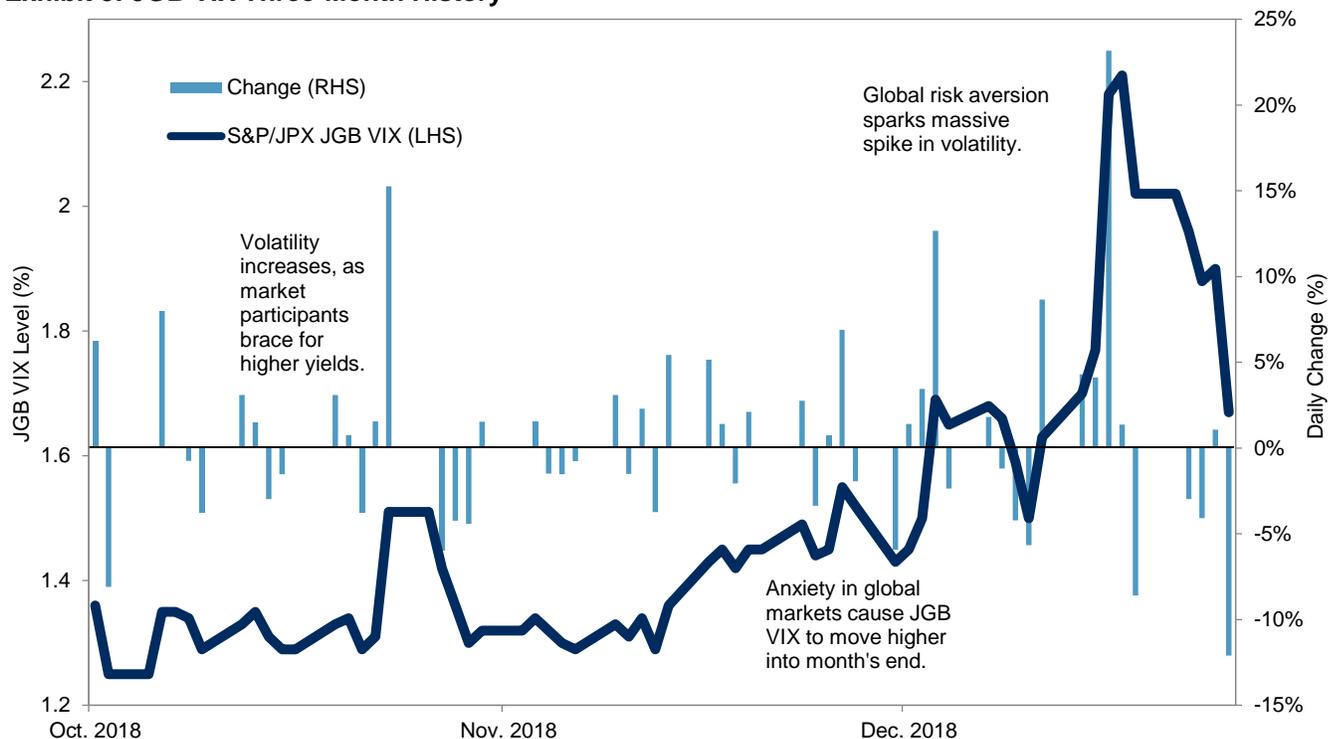
### JGB VIX Real-Time Movements:

1. Futures reverse direction after touching intraday lows (151.45)
2. Futures touch highs not seen since November 2016 (151.82)
3. Futures spike to highs not seen since August 2016 (152.84)
4. JSCC emergency margin call is triggered—JGB VIX stays elevated but futures plummet

**Exhibit 2: 2-Year to 5-Year JGB Spread Inverts, JSCC Margin Call – Dec. 19, 2018**



Source: S&P Dow Jones Indices LLC. Data as of December 2018. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

**Exhibit 3: JGB VIX Three-Month History**

Source: S&P Dow Jones Indices LLC. Data as December 2018. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

**Upcoming January Events****Scheduled JGB Purchases**

Jan. 7, 15, 21, 28 (1-5 years)  
 Jan. 4, 9, 17, 25, 30 (5-10 years)  
 Jan. 7, 15, 21, 28 (10+ years)

**Major JGB auctions**

Jan. 8 (10-year)  
 Jan. 10 (30-year)  
 Jan. 16 (5-year)  
 Jan. 24 (20-year)  
 Jan. 29 (40-year)  
 Jan. 31 (2-year)

**BoJ Monetary Policy Meeting**

Jan. 22-23

**Many Potential Catalysts to Keep JGB VIX high**

Amid the falling bond yields of December, one interesting day was the trading session on Dec. 19, 2018 (see Exhibit 2). While the JGB 2-year to 5-year yield spread inverted for the first time since 2016, it was the sudden rise in JGB 10-year futures that triggered an emergency margin call just after lunch. As market participants scrambled to liquidate positions, futures gave up all morning gains and then some, before stabilizing into the close. By comparison, the S&P/JPX JGB VIX remained relatively high that day as an indicator that bond market volatility was likely to continue.

Looking ahead, while the Federal Reserve policy decisions are likely to be a main focus of the market, the BoJ's dilemma cannot be ignored. It was only in July 2018 that the BoJ needed to tweak its policy to give itself more flexibility in the face of rising rates. With yields now back below where they were before the July adjustment and with signs that liquidity is drying up, the BoJ's policy options are starting to dwindle. It will be important to monitor the S&P/JPX JGB VIX in the months ahead.

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