

Average duration and maturity of JGB, JGBS held by the BoJ

Methodology

Our estimations are based on publicly available data released by the Bank of Japan (BoJ) as well as by the Ministry of Finance (MoF). To estimate average duration and maturity values of Japanese Government Bonds (JGB) and Japanese Government Securities (JGS) held by the BoJ, following statistics are our main source of inputs.

"Japanese Government Bonds held by the Bank of Japan" (BoJ)
"T-Bills purchased by the Bank of Japan" (BoJ)
"Bank of Japan accounts" (BoJ)
"Auction Results" (MoF)

To estimate average duration and maturity values of BoJ's monthly purchases, we make use of information contained in the stock data as well as the following statistics.

"Money Market Operations Conducted by the Bank of Japan" (BoJ)

"Monetary Base and the Bank of Japan's Transactions" (BoJ)

"Buyback auction results" (MoF, available only in Japanese)

We used face value for allocating weights in calculation average duration and maturity.

Our use of terms

Following are brief explanations for some terminologies to help clarify ambiguities.

"Maturity": We define "maturity" as the time remaining before the principal part of debt securities is scheduled to be repaid.

"Duration": In principal, we use Macaulay duration as the "duration" of debt instruments we evaluate. There are a few notable exceptions though. For inflation index bonds, we use real interest rates, instead of nominal rates, to calculate the present value of flows of values. For floating rate bonds, we consider

all variable rate bonds to have duration equal to the time remaining before the next coupon payment.

“Japanese Government Bond (JGB)”: We follow the terminology employed by the Bank of Japan in its “Bank of Japan Accounts” statistics. “JGB” includes coupon- bonds, inflation indexed bonds and floating rate bonds. “JGB” does not include Treasury Bills or Financing Bills.

“Japanese Government Securities (JGS)”: We follow the definition employed by the Bank of Japan in its “Bank of Japan Accounts” statistics. “JGS” includes all debt securities issued by the Japanese government, specifically including “JGB” and TBs and FBs. “JGS” does not include “Borrowing”.

“Monthly purchase of JGB by BoJ”: We have two series of monthly purchase amount of JGB by BoJ. “Amount (book value basis)” uses book value data on the basis of the exercise date of operation. “Amount (face value, auction date basis)” uses face value data of JGBs purchased by BoJ on the basis of the offer date of operation.

Publication schedule

As of May 2013, the BoJ publishes the details of its holding of JGB and JGS at 5pm on the second business day after the end of the month. We publish our series at 5pm on the following day. For the schedule of official data releases, please see here <http://www.boj.or.jp/en/statistics/outline/index.htm/>