

Yield Curves - Frequently Asked Questions

This is a selection of the most frequently asked questions along with answers. The contents will be updated on an ongoing basis.

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How often is the information on this site updated?

We aim to publish yield curves by noon of the following business day. The site shows when the data were last updated. Monthly data in our archive are available by close of business of the second working day of a month, for example, data for the 31/12/10 will be published by close of business 05/01/11.

Why doesn't the spreadsheet for the latest month contain up-to-date data?

If the downloaded spreadsheet does not contain up-to-date data, it is possible this is due to an old version of the page being saved in your cache memory. It is often possible to fix this problem by ensuring that you have accessed the page using the link below and by refreshing the web-page before downloading the spreadsheet. http://www.bankofengland.co.uk/statistics/Pages/yieldcurve/default.aspx.

At which frequency are the yields compounded and how are they quoted?

The yields (spot and forward) are continuously compounded and quoted on an annual basis. We do not provide support in transforming these yields into other forms of compounding/quoting or how these should be used for specific applications.

What are the day count conventions?

We follow the conventions used in the market. For UK government bonds this has been Actual/Actual since November 1998 and Actual/365 prior to that. For all other instruments the convention is Actual/365.

Why are the yields not available for all maturities on some trading days?

The start and end points of our estimated curves depend on the shortest and longest market instruments for which reliable prices are available. Therefore, the range of maturities for which yields are available may vary according to the instruments available.

Where can I get more information on how to interpret movements in yield curves?

General discussion of yield curve movements can be found in Section 1 of the Bank's **Quarterly Inflation Report**, and also in the Markets and Operations section of the **Bank's Quarterly Bulletin**.

Where can I get UK yield curve data going further back in time?

A good source for this kind of historical data is the book by F Capie and A Webber, 'A Monetary History of the United Kingdom 1870-1982', published by Routledge. Alternatively a good web source is **www.globalfinancialdata.com**.

Where can I get yield curve data for other countries?

The **ECB** homepage has nominal yield curve data for the euro area. The Federal Reserve Board's homepages contain **nominal** and **real** yield curve data for the US.

Where can I get data on Libor and other market interest rates?

Libor rates for a number of currencies and also sterling market Repo rates are provided on the **Intercontinental Exchange website**.

Which curve is used to derive the market expectations of the Bank's policy rate published in the Inflation Report?

The projections for CPI inflation and GDP growth published in the Inflation Report are conditioned on a benchmark path for Bank Rate over the future. This assumes that Bank Rate follows a path implied by a yield curve calculated from certain financial market instruments. An **explanation of how the MPC derived the conditioning paths for previous Inflation Report projections can be found here**.

Since the August 2009 Inflation Report, the conditioning path has been based exclusively on OIS rates. OIS instruments settle on the Sterling Overnight Index Average (SONIA) rate, which is typically reasonably close to Bank Rate. The market profile is currently constructed as a 15-day average of the instantaneous forward OIS rates that fall in each quarter of the forecast horizon. The market profile observation in the quarter of the Inflation Report's publication takes into account the level of Bank Rate that has prevailed over that quarter.

Why do OIS curves only go out to 5 year horizons?

As with the government and bank liability curves, the Bank only publishes curves over the range that reliable data are available. The Bank's market contacts report that liquidity in OIS contracts beyond the 5 year horizon is relatively limited and as such OIS curves are only made available out to this horizon.

Why is there no short-end information for the government curve prior to March 1997?

The market for generalised collateral (GC) repo agreements began in January 1996. GC repos became a more satisfactory indicator of expectations of future interest rates after March 1997, when the Bank began conducting its Open Market Operations using gilt repos. Prior to this date the only available short maturity assets we could use would be Treasury bills, which do not have an active secondary market and the prices of which are affected by banks' liquidity requirements.

Are the data subject to revision?

Yes, revisions will reflect changes in the inclusion of data on different instruments in the underlying calculations. For example, UK real yield data were reviewed in 2017 and data were revised. In that case, the estimation procedure was changed (moving to estimation based on real prices rather than nominal prices) for recent data. <u>See annex for more detail.</u>

I would like to recreate your yield curves, can you provide me with your code?

The yields that we quote are derived from a fitted curve (for background information see **New estimates of the UK real and nominal yield curves** by Nicola Anderson and John Sleath). We provide our yield curve estimates for ease of reference and research purposes, as do other major central banks. While we understand that they might be used for a wide array of purposes, we are unable to provide further support to aide any specific applications. We do not currently publicly disclose our code, updated parameter values or specific decisions to include or exclude specific instruments. We do, however, periodically review the amount of information we make publicly available. We review the yield curve derivation methodology on a regular basis and reserve the right to modify, adjust or improve the methodology.

Why are Bank of England rates different from others in the market?

The Bank's yields may differ to those of other institutions due to the method of calculation used. The yields that we quote are derived from a fitted curve (for background information see **New estimates of the UK real and nominal yield curves** by Nicola Anderson and John Sleath). These curves aim to fit relatively smooth implied forward rates. For a comparison of the methods used in major central banks see BIS paper 25 at http://www.bis.org/publ/bppdf/bispap25.pdf.

Can I store the data provided on your website?

Please refer to the "website copyright/disclaimer notice" that is linked at the bottom of the page on yield curves (http://www.bankofengland.co.uk/Pages/disclaimer.aspx). Providing that the data were used according to the conditions listed on that page, there would be no objection to electronic storage. Please be aware however, that data are subject to revisions and the latest data will be available on our website.

Why is more data available for the UK government nominal curve?

The extra data (that is, data beyond the 25-year maturity) has been provided following a number of years of increased issuance of UK government bonds at long maturities. The 40-year maturity has been chosen as the cut-off to maintain consistency along the yield curve. Although bonds with maturities greater than 40 years have been issued, gaps between maturities beyond the 40-year maturity are greater than in other segments of the yield curve.

Why has this data been made available now?

From time to time we review the data we estimate and publish and may make changes to either as a result of a review. As part of a recent review, the UK government nominal curve was identified as being of broad interest to the public at maturities greater than our previous maturity cut-off (25 years). The extension of the published data for that curve to 40 years is a result of that review.

Annex to Frequently Asked Questions

This annex provides background information relating to the revision, in 2017, of UK real yield estimates published on the Bank of England website. (Data for 2017 were revised in July 2017; data for 2015 and 2016 in October 2017. In both cases the same type of revision was made; it is described below.)

- The UK inflation-linked government bond (ILGB) market comprises two types of inflation-linked bond, "oldstyle" and "new-style", both linked to the UK Retail Price Index (RPI).
- The "new-style" ILGBs are linked to inflation with a three-month lag and use interpolated price index levels; the lag in "old-style" ILGBs is eight months and no interpolation is made.
- When trades in each type of bond are settled, both accrued interest and accrued inflation are factored into the settlement price. But for trading purposes the convention used for prices and yields is not uniform and varies according to the type of the bond.
- The composition of the market in terms of the two types of bond has changed over time. It is dominated now by the "new-style" type.

Reflecting this, the 2017 revision of the real yield estimates corresponds to a switch of the price convention used in the fitting procedure from that characteristic of the "old-style" instrument to that of the "new-style" instrument¹. Prices of both types of bond continue to be used as inputs in the fitting procedure.

¹ In detail, new-style ILGB prices are quoted in "real, clean" (RC) terms: quoted prices include neither accrued interest nor accrued inflation; old-style ILGB prices are quoted in "nominal, clean" (NC) terms: accrued inflation is included but accrued interest is not. (For the respective yield calculations a formula is used, which is set by the Debt Management Office (DMO) and which varies according to the type of the ILGB, and accrued interest is added to the quoted price, which varies according to the type of the ILGB.)