

Extending the McCulloch and Kwon (1993) Zero-Coupon Yield Data

George Bulkley, Richard D. F. Harris and Vivekanand Nawosah

*Xfi Centre for Finance and Investment
University of Exeter*

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This note provides details of the accompanying data files, ZEROYLD3 and ZEROERR3. These data extend, respectively, the data files on monthly time series of zero-coupon bond yields on US Treasury securities and the associated standard errors constructed by McCulloch and Kwon (1993) for the period 12/1946–02/1991.

The original McCulloch-Kwon zero-coupon bond yield data can be found at www.econ.ohio-state.edu/jhm/ts/mcckwon/mccull.htm. For the sake of consistency, the extended data are based on the same 56 maturities ranging from 0 month to 40 years and we keep the same file format, including the FORTRAN F8.3 format and the maximum line size of 80 columns, as in the original McCulloch-Kwon files. The same -88.888 number is entered for missing values. The reader is referred to McCulloch and Kwon (1993), available at the same link as above, for further details regarding the organisation and formatting of the files.

The McCulloch and Kwon data are constructed using the tax-adjusted cubic spline method of McCulloch (1975), with the modification that bond coupons arrive discretely, rather than continuously, and we apply the same procedure. The authors are indebted to J. Huston McCulloch for kindly providing the FORTRAN program that fits the term structure of interest rates using this method and for his invaluable help in resolving a number of problems that makes the new data far more consistent with the original data than would otherwise have been.

The raw data are obtained from the CRSP US Treasury Database and include all available quotations on US Treasury bills, notes and bonds. Note that we exclude callable bonds as did McCulloch and Kwon (1993) in the 08/1985–02/1991 period. We also eliminate the few “flower bonds” (bonds that are redeemable at par in payment of federal estate taxes) that exist in the extended period, the last one of which maturing on

15/11/1998. Data on tax rates used in the estimation are obtained from the Internal Revenue Service, US Department of Treasury (www.irs.gov).

References

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