

Data Description

Credit Spreads and Business Cycle Fluctuations

July 19, 2011

The main sources of data used in the paper are the *proprietary* data on the corporate bond market purchased by the Federal Reserve Board. The first data set contains information on all individual corporate bonds that comprised the Lehman Brothers Bond Indexes from January 1973 to March 1998. These data were available on a subscription basis to universities and research departments of the Federal Reserve System (unfortunately, Lehman Brothers stopped making the data available after that). The Federal Reserve Board had a subscription to these data over the entire time period and has archived the micro-level data for research purposes. Inquiries about costs and historical data availability should be directed to Dr. Arthur Warga (713-743-4779) at warga@uh.edu; however, according to the latest available information, Dr. Warga is now the Dean of the Business School at the University of Houston and is no longer distributing these data.

The second source of bond-level data comes from Merrill-Lynch. The research divisions at the Federal Reserve Board have a subscription to a daily feed of secondary market prices of individual corporate bonds in the Merrill Lynch U.S. Corporate Master index and its High-Yield Master II index. These data are available starting in January 2, 1997. Because the time spans of the Lehman and Merrill Lynch data sets overlap for 16 months, one can splice the prices of individual securities across the two data sources. According to the latest available information, inquiries about costs and data availability should be directed at Mr. Arjun Kondamani (212-449-5533) at AKondamani@exchange.ml.com.

The remainder of the note documents the various aggregate time series used in the paper. Included are the following two data sets: (1) **GZ_monthly.csv**: data set containing the *monthly* time series used in the analysis; and (2) **GZ_quarterly.csv**: data set containing the *quarterly* time series used in the analysis.¹ The paper focuses on the period from 1973:M1 to 2010:M9. For standard macroeconomic variables, we included a sufficient history to construct the necessary lags in order to replicate our forecasting results.

Data Set: **GZ_monthly.csv**

- **gz_spr**: the “GZ credit spread,” the average (cross-sectional) credit spread on senior unsecured corporate bonds issued by nonfinancial firms in our sample (in percentage points).
- **baa_aaa**: the spread between yields on Baa- and Aaa-rated long-term corporate bonds issued by industrial firms (in percentage points).
- **cp_treas1mo**: the spread between the yield on 1-month A1/P1-rated nonfinancial commercial paper and the 1-month Treasury yield (in percentage points).

¹Series in the **GZ_monthly.csv** data set that are also in the **GZ_quarterly.csv** data set are converted to a quarterly frequency using simple quarterly averages.

- `dd_wp25`: liabilities weighted 25th percentile of the distance-to-default of the firms in our sample (in standard deviations).
- `dd_wp50`: liabilities weighted median of the distance-to-default of the firms in our sample (in standard deviations).
- `dd_wp75`: liabilities weighted 75th percentile of the distance-to-default of the firms in our sample (in standard deviations).
- `dd_wp50_all`: liabilities weighted median of the distance-to-default for the U.S. nonfinancial corporate sector (in standard deviations).
- `gz_spr_p`: predicted GZ spread based on the regression specification that does not control for the term structure and interest rate effects on credit spreads of callable bonds (in percentage points).
- `gz_spr_oa_p`: predicted GZ spread that excludes the effects of the term structure and interest rate volatility on credit spreads of callable bonds (in percentage points).
- `ebp`: the (option-adjusted) excess bond premium (in percentage points).
- `xmktret`: excess (value-weighted) market return (in percent, annualized).
- `cds1yr_bd_avg`: broker-dealers average 1-year CDS spread (in percentage points).
- `cds5yr_bd_avg`: broker-dealers average 5-year CDS spread (in percentage points).
- `sp500vix`: implied volatility on the S&P 500 (VIX) (percent)
- `xret_bd`: value-weighted average excess return of broker-dealers (in percent, annualized).
- `termspr`: term spread (3-month Treasury yield less 10-year Treasury yield) (in percentage points).
- `ffr_r`: real federal funds rate (in percent).
- `empl`: private nonfarm payroll employment (thousands of employees).
- `uerate`: civilian unemployment rate (percent)
- `ipm`: manufacturing industrial production index (2007=100).

Data Set: **GZ_quarterly.csv**

- `gz_spr`: the “GZ credit spread,” the average (cross-sectional) credit spread on senior unsecured corporate bonds issued by nonfinancial firms in our sample (in percentage points).

- `baa_aaa`: the spread between yields on Baa- and Aaa-rated long-term corporate bonds issued by industrial firms (in percentage points).
- `cp_treas1mo`: the spread between the yield on 1-month A1/P1-rated nonfinancial commercial paper and the 1-month Treasury yield (in percentage points).
- `gz_spr_oa_p`: predicted GZ spread that excludes the effects of the term structure and interest rate volatility on credit spreads of callable bonds (in percentage points).
- `ebp`: the (option-adjusted) excess bond premium (in percentage points).
- `cons`: real personal consumption expenditures (billions of chained (2005) dollars).
- `invest_tot`: real business fixed investment (billions of chained (2005) dollars).
- `gdp`: real GDP (billions of chained (2005) dollars).
- `pgdp`: GDP price deflator index (2005=100).
- `xmktret`: excess (value-weighted) market return (in percent, annualized).
- `treas10yr`: 10-year Treasury yield (in percent).
- `ffr_eff`: effective federal funds rate (in percent).
- `cistds`: net percent of SLOOS respondents that reported tightening their standards on C&I loans over the previous three months.
- `roa`: return on assets in the U.S. financial corporate sector (in percent, annualized).
- `termspr`: term spread (3-month Treasury yield less 10-year Treasury yield) (in percentage points).
- `ffr_r`: real federal funds rate (in percent).
- `cons_nds`: PCE on nondurable goods & services (billions of chained (2005) dollars).
- `cons_d`: PCE on durable goods (billions of chained (2005) dollars).
- `invest_res`: residential investment (billions of chained (2005) dollars).
- `invest_es`: business fixed investment in E&S (excluding high-tech) (billions of chained (2005) dollars).
- `invest_ht`: business fixed investment in high-tech equipment (billions of chained (2005) dollars).
- `invest_nrs`: business fixed investment in structures (billions of chained (2005) dollars).
- `invbus`: business inventories (billions of chained (2005) dollars).