

Corporate Bond Spreads and Credit Market Conditions

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CREDIT SPREADS AND ECONOMIC ACTIVITY

- Research on the role of asset prices in cyclical fluctuations stresses the predictive content of **corporate bond spreads**.
- Predictive content of credit spreads for economic activity could reflect disruption in the supply of credit stemming from:
 - ▶ Worsening of the quality of borrowers' balance sheets.
 - ▶ Deterioration in the health of financial intermediaries.
- Predictive content could reflect the ability of the corporate bond market to signal more accurately than the stock market a decline in economic fundamentals.

CREDIT SPREAD DECOMPOSITION

Gilchrist & Zakrajšek [2011]

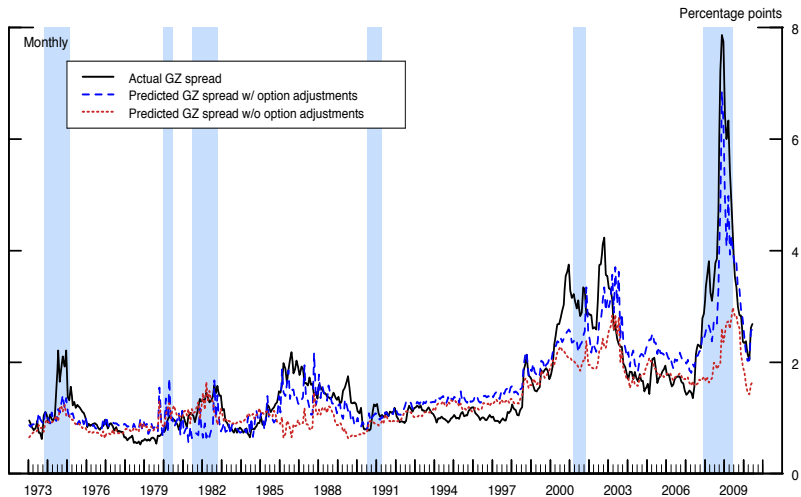
- Use **bond-level** data to construct a high information-content credit spread.
- Decompose this credit spread:
 - ▶ Predictable component attributable to expected default risk.
 - ▶ Excess bond premium (EBP).

$$EBP_t = \left[\begin{array}{c} \text{Actual} \\ \text{Average Spread} \end{array} \right]_t - \left[\begin{array}{c} \text{Predicted} \\ \text{Average Spread} \end{array} \right]_t$$

- EBP is high when credit spreads are high relative to expected defaults.

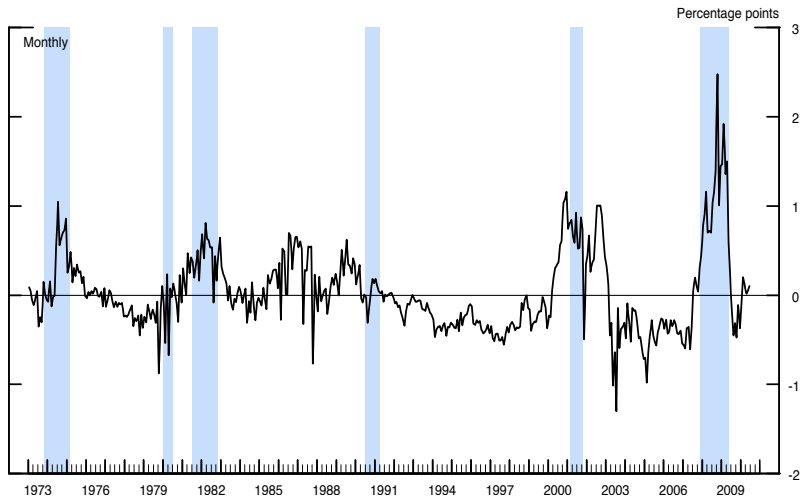
EMPIRICAL CREDIT-SPREAD MODEL

(Jan1973–Sep2010)



THE EXCESS BOND PREMIUM

(Jan1973–Sep2010)



THE EBP AND ECONOMIC ACTIVITY

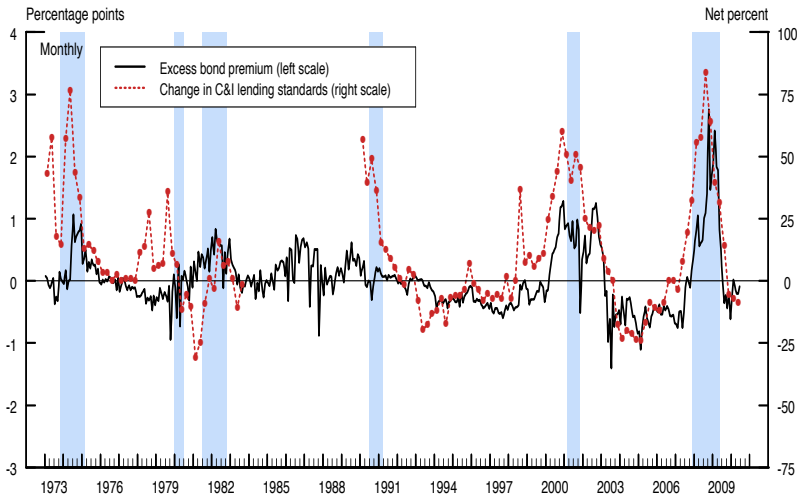
- EBP is a highly significant predictor of a wide array of economic indicators, at different forecast horizons and over different sample periods.
- EBP innovations lead to:
 - ▶ Significant declines in consumption, investment, and output.
 - ▶ Appreciable disinflation.
 - ▶ Decline in risk-free rates and a fall in the broad stock market.

INTERPRETATION

- Financial shocks cause variation in the risk attitudes of the marginal investor pricing corporate bonds:
 - ▶ Corporate bond market is dominated by large institutional investors.
 - ▶ Shift in their risk attitudes leads to an increase in EBP.
(He & Krishnamurthy [2010]; Adrian, Moench & Shin [2010])
- Initial adverse dynamics further amplified through the financial accelerator mechanism.

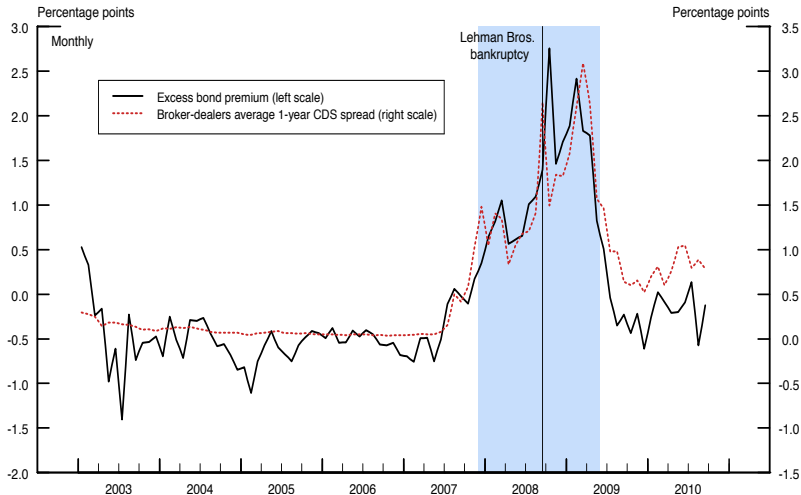
THE EBP & CHANGES IN C&I LENDING STANDARDS

(Jan1973–Sep2010)



THE EBP & FINANCIAL INTERMEDIARY CDS SPREADS

(Jan2003–Sep2010)

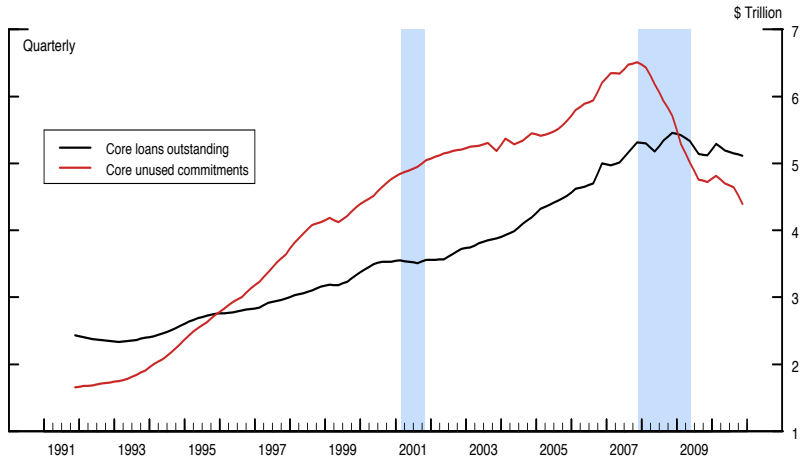


MEASURING CREDIT MARKET DISRUPTIONS

- Increases in EBP signal disruptions in financial markets.
- What is the transmission to **observed** lending flows?
- Important to disentangle credit supply from demand effects:
 - ▶ Survey evidence on lending attitudes (SLOOS).
 - ▶ Loans outstanding vs. unused commitments.
 - ▶ Disaggregated data by borrower type.

MEASURING CORE LENDING CAPACITY

(1991:Q4–2010:Q4)

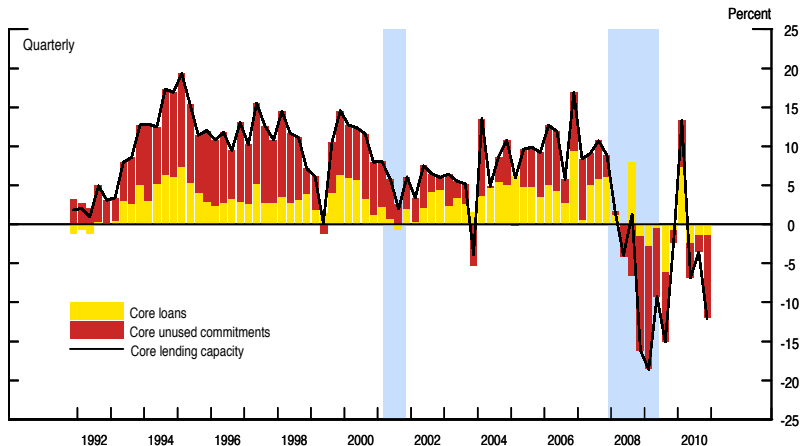


- Lending Capacity = Loans Outstanding + Unused Commitments

SOURCE: Call Reports.

GROWTH IN CORE LENDING CAPACITY

(1991:Q4–2010:Q4)



- Changes in lending capacity are a more-informative indicator of cyclical credit flows.

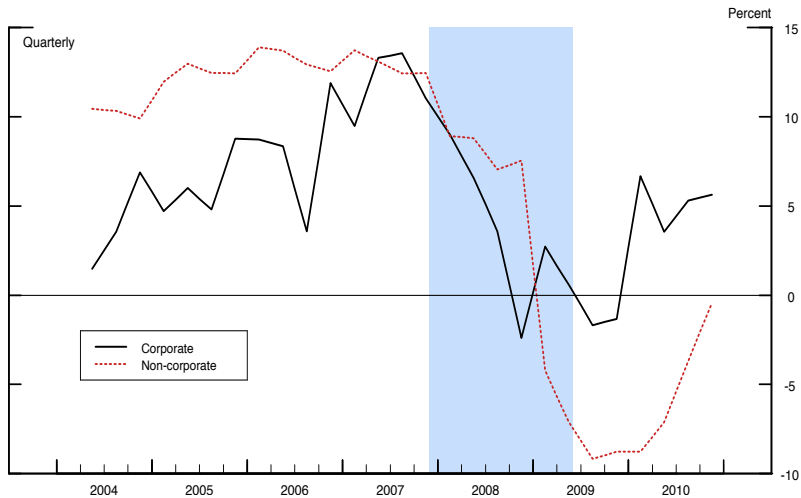
SOURCE: Call Reports.

IMPLICATIONS FOR FINANCIAL STABILITY

- Contractions in lending capacity are due to:
 - ▶ Drawdowns on existing credit lines.
 - ▶ Reductions in banking sector's willingness to provide credit.
- Unused commitments represent significant sources of off-balance-sheet funding risk and credit exposure.
- Risk-induced shifts in loan supply disproportionately affect **bank-dependent** borrowers.

BUSINESS SECTOR BORROWING

(2004:Q2–2010:Q4)



SOURCE: U.S. Flow of Funds.

DATA AVAILABILITY

Bank-Reported Data

- **Call Reports:**
 - ▶ Comprehensive micro-level information on income and balance sheets of U.S. commercial banks.
 - ▶ Useful information on maturity structure of assets and liabilities, credit quality, and off-balance-sheet items.
 - ▶ Available only with a 45 day lag.
- **H.8 Statistical Release:**
 - ▶ Weekly measures of selected assets and liabilities of commercial banks based on a stratified sample.
 - ▶ Very timely (two-week lag).
- **Disadvantages:**
 - ▶ Reporting unit is a **bank** not a BHC.
 - ▶ Banks report only loans outstanding, no loan originations.
 - ▶ No information on loan terms or risk characteristics of borrowers.

DATA AVAILABILITY

Market-Based Sources

- **Sources:** corporate bond and syndicated loan markets, credit derivatives markets.
- **Advantages:**
 - ▶ Primary and secondary market prices.
 - ▶ Detailed information on terms and maturity structure.
 - ▶ Can be linked to borrower data (COMPUSTAT, CRSP).
- **Disadvantages:**
 - ▶ Limited to large mostly publicly-traded firms.
 - ▶ Difficult to measure risk-bearing capacity of nonbank holders (e.g., hedge funds) of these assets.

DATA WISH LIST

- Require banks to report new originations and drawdowns under existing lines for all credit instruments.
- Require non-bank FIs to report detailed credit exposures.
- Provide matched longitudinal data set of lenders and borrowers:
 - ▶ Detailed information on credit instruments, both those traded in the secondary market and those that are not.
 - ▶ Ability to link these data consistently over time to other sources of information on borrower/lender characteristics.
- **Question:** Can such data be obtained within the OFR regulatory structure?